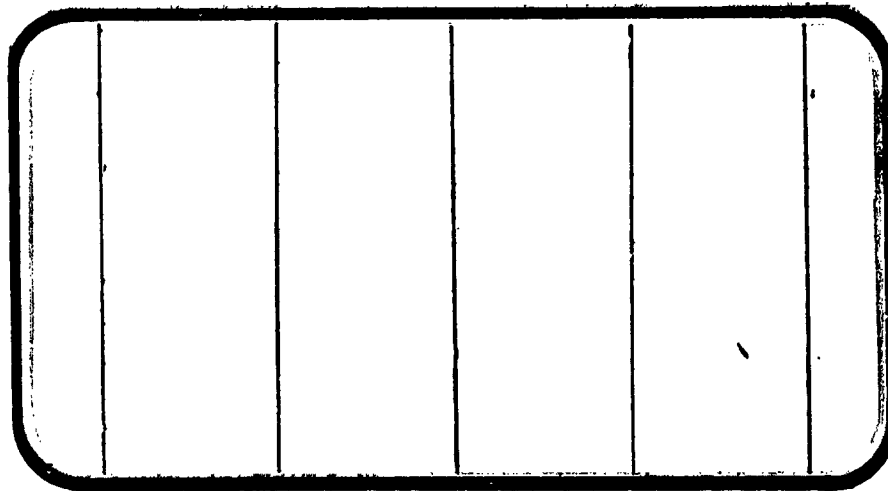




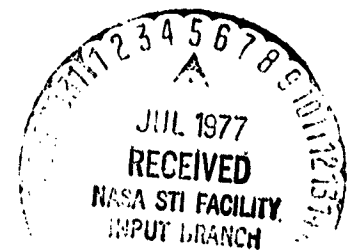
National Aeronautics and  
Space Administration

Lyndon B. Johnson Space Center  
Houston, Texas 77058



(NASA-CR-151074) RESULTS OF PHASE CHANGE  
PAINT HEAT TRANSFER TEST UTILIZING  
G.040-SCALE 50% FOREBODY MODELS (NO. 82-0) *HC A04/MF A01*  
OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE  
ORBITER IN AEDC VKI HYPERSONIC (Chrysler) *Unclas*  
G3/16 31812

## SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT



Data Management SERVICES

SPACE DIVISION



CHRYSLER  
CORPORATION

May 1977

DMS-DR-2342  
NASA CR-151,074

RESULTS OF PHASE CHANGE PAINT HEAT TRANSFER  
TEST UTILIZING 0.040 SCALE 50% FOREBODY MODELS \_\_\_\_  
(NO. 82-0) OF THE ROCKWELL INTERNATIONAL SPACE  
SHUTTLE ORBITER IN AEDC VKI HYPERSONIC TUNNEL B  
(TEST OH54B)

by

W. H. Dye  
Shuttle Aerosciences  
Rockwell International Space Division

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services  
Chrysler Corporation Michoud Defense-Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: AEDC VKFB-V41B-82A  
NASA Series Number: OH54B  
Model Number: 82-0  
Test Dates: July 21 through July 25, 1975  
Occupancy Hours: 38

FACILITY COORDINATOR:

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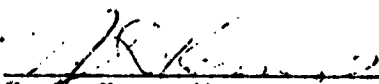
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Chrysler Corporation Michoud Defense-Space Division assumes no responsibility for the data presented other than display characteristics.

RESULTS OF PHASE CHANGE PAINT HEAT TRANSFER  
TEST UTILIZING 0.040 SCALE 50% FOREBODY MODELS  
(NO. 82-0) OF THE ROCKWELL INTERNATIONAL SPACE  
SHUTTLE ORBITER IN AEDC VKF HYPERSONIC TUNNEL B  
(TEST OH54B)

by

W. H. Dye  
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ABSTRACT

Results of aerodynamic heating phase change paint tests of the Rockwell International Space Shuttle Orbiter conducted in the AEDC VKF Tunnel B during July, 1975 are presented. The model was a 0.040 scale representation of the forward 50% of the orbiter. Surface roughness effects on boundary layer transition were investigated. The roughness was simulated by steel balls 0.020 and 0.025 inch in diameter and a 0.25 in. diameter hole simulating the forward ET attach socket. A nominal Mach number of 8 was tested with unit Reynolds number varying from  $0.75 \times 10^6/\text{ft}$  through  $3.5 \times 10^6/\text{ft}$ . Angle of attack was varied from  $20^\circ$  to  $40^\circ$ .

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## INTRODUCTION

Aerodynamic heating phase change paint hypersonic wind tunnel tests were conducted on 0.040 scale 50% forebody models of the Rockwell International Space Shuttle Orbiter (models 82-0) to determine the effects of forward ET attach socket and roughness element size and location on boundary layer transition. The tests were conducted in the Arnold Engineering and Development Center VKI hypersonic wind tunnel B from July 21 to July 25, 1975. These tests, OH54B, were the second of three entries in the facility to complete OH54.

Two (2) different surface irregularities were tested:

- 1) small steel balls (boundary layer tripping device)
- 2) a .25 inch diameter hole located at  $X_o = 388$  on the model (simulating ET attach socket)

The tests were conducted at Mach 8 and Reynolds numbers ranging between  $0.75 \times 10^6/\text{ft}$  and  $3.5 \times 10^6/\text{ft}$ . Model angle of attack was varied from  $20^\circ$  through  $40^\circ$ .

# NOMENCLATURE

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
$C_p$	C	specific heat of the model material, BTU/lb-°F
$g$		acceleration due to gravity. 32.17 ft/sec <sup>2</sup>
$h$	H(TO)	heat transfer coefficient based on $T_{AW} = T_o$
$h_s$	HREF	reference heat-transfer coefficient based on Fay-Riddell theory, BTU/ft <sup>2</sup> -sec.-°R
$l$	L	fuselage reference length. 1293.3 in.
$M_\infty$	MACH	free stream Mach no.
$N_r$	R	reference nose radius (0.040 ft. model scale, 1 ft. full scale)
$P_\infty$	P-INF	free stream static pressure, psia
$P_r$		Prandtl number
$P_o$	PO	tunnel stilling chamber pressure, psia
$P_1, P_2$		defined in context
$q_\infty$	Q-INF	free-stream dynamic pressure, psia
$R$		universal gas constant, ft-lb <sub>f</sub> /lb <sub>m</sub> -°R
$Re/ft$	RN/L	free stream unit Reynolds number. ft <sup>-1</sup>
$S_t$	ST(TO)	Stanton number based on $T_o$ :

$$ST(TO) = \frac{H(TO)}{\rho_\infty v_\infty [0.2235 + 1.35 \times 10^{-4}(T_o + 560)] \times 32.17}$$



# NOMENCLATURE (Continued)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
	STREF	Reference Stanton number: $ST(TO) = \frac{HREF}{\rho_{\infty} V_{\infty} [0.2235 + 1.35 \times 10^{-4}(T_0 + 560)] \times 32.17}$
$T_{aw}$	TAW	adiabatic wall temperature, °F
$\bar{T}$	TBAR	$\frac{T_{pc} - T_{IN}}{T_{aw} - T_{IN}}$
$T_1$	TI	temperature measured by thermocouple no. 1, °F
$T_{IN}$	TIN	initial model temperature, °F
$T_{\infty}$	T-INF	free stream static temperature-°R
$T_{pc}$	TPC	paint melt temperature, °F
$T_0$	TO	tunnel stilling chamber temperature, °R
$t$	TIME	time from start of model injection, sec.
$\Delta t$	DEL TIME	time model exposed to airstream. sec.
$V_e$		velocity at edge of the boundary layer, ft/sec.
$V_{\infty}$	V-INF	free stream velocity, ft/sec.
$x$		longitudinal coordinate
$\alpha$	ALPHA	model angle of attack corrected for sting deflection, deg.
$\beta$	BETA	flow parameters defined in context; also sideslip angle, deg.
$\gamma$		ratio of specific heats of air
$k$	K	model thermoconductivity, BTU/ft-sec-°F
$\mu_{\infty}$	MU-INF	free stream viscosity, lb-sec/ft <sup>2</sup>

# NOMENCLATURE (Concluded)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
$\mu_s$		stagnation air viscosity, lb-sec/ft <sup>2</sup>
$\mu_w$		air viscosity along model wall, lb <sub>m</sub> /ft-sec
$\rho$	RHO	model material density, lb <sub>m</sub> /ft <sup>3</sup>
$\rho_w$		air density along model wall, lb <sub>m</sub> /ft <sup>3</sup>
$\rho_s$		stagnation air density, lb <sub>m</sub> /ft <sup>3</sup>
$\rho_\infty$	RHO-INF	free stream air density, slug/ft <sup>3</sup>
$\psi$	YAW	model yaw angle, deg.
	BREF	wing span at reference span; m, ft.
	H/HREF	ratio of heat transfer coefficient based on $T_{aw}=T_o$ to reference heat transfer coefficient based on Fay-Riddell theory (100% recovery factor)
	LREF	reference length or wing mean aerodynamic chord; m, ft.
	SREF	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
	XMRI' YMRI' ZMRI'	{ moment reference point on X, Y, and Z axes
	X/L	longitudinal fuselage location, reference to nose; in lab. data, X/L is location of melt line on fuselage bottom centerline
	RUN NO.	denotes individual test run
	GROUP	same as Run No.
	FRAME	defined in test procedure section

## CONFIGURATIONS INVESTIGATED

The models were 0.040 scale representations of the forward 50% of the Rockwell International Space Shuttle Orbiter. The models were contoured per Rockwell lines VL70-000140C.

Five (5) different models were utilized. They were designated as 82-1, 82-2, 82-10, 82-11 and 82-12. The -1 and -2 models were made of Grumman proprietary material 'G' cast on a steel sting. Models 82-10, -11 and -12 were cast from Lockheed proprietary material "LH" on a steel sting. Shrinkage during curing of the cast models reduced the scale of each model to 0.0397. Differences in the models were as follows:

<u>Model No.</u>	<u>Test Configuration No.</u>	<u>Definition</u>
82-1	1	Paint stripe model used as a reference for model coordinate system. Figure 2a defines its grid system.
82-2	2	Model with a 0.25 inch diameter hole located at $x/l = 0.0104$ on the fuselage bottom centerline. The hole simulated the ET forward attach socket.
82-10	10	Model with a stainless steel insert located at $x/l = 0.0518$ on the fuselage lower surface. Interchangeable trip rings, consisting of steel balls spot welded to a contoured fuselage segment, fit into the insert. Trip rings with 0.00 (no balls), 0.020, and 0.025 inch diameter balls were tested.
82-11	11	Model with stainless steel insert and trip rings (like No.10) located at $x/l = 0.11$ on the fuselage lower surface. A trip ring with balls was tested.

# CONFIGURATIONS INVESTIGATED (Continued)

<u>Model</u> <u>No.</u>	<u>Test</u> <u>Configuration</u> <u>No.</u>	<u>Definition</u>
82-12	12	Model with stainless steel insert and trip rings (like No.10) located at $x/l = 0.164$ on the fuselage lower surface. Trip rings with 0.00 (no balls), 0.020 and 0.025 inch diameter balls were tested.

The reference body length ( $l$ ) is 1293.3 inches.

## TEST FACILITY DESCRIPTION

The Arnold Engineering Development Center (AEDC) is an Air Force Facility located in Tullahoma, Tennessee. The tunnel used, Tunnel B, is located in the von Karman Facility portion of this center. Engineering and other technical operations in this tunnel are performed by contractor personnel of ARO, Inc.

Tunnel B is a continuous, closed circuit, variable density wind tunnel with an axisymmetric contoured nozzle and a 50-inch diameter test section. The tunnel can be operated at a nominal Mach number of 6 or 8 at stagnation pressures from 20 to 300 and 50 to 900 psia, respectively, and at a stagnation temperature of up to 1350°R. The model may be inserted into the tunnel for a test run and then retracted for model cooling or model changes without interrupting the tunnel flow.

## TEST PROCEDURE

Tempilaq<sup>®</sup>, a fusible coating that changes phase from an opaque solid to a transparent liquid at temperatures specified by the manufacturer, was used to indicate the location of isotherms on the model surface. The paints used had melting temperatures of 169, 200, 250, 300, 350 and 400, degrees Fahrenheit.

A Beattie-Coleman Varitron<sup>®</sup> 70 mm sequence camera was used to record the progression of isotherms on the windward surface as a function of time during each test run. The camera was located on the top of the wind tunnel and photographed the bottom surface of the Orbiter models. The camera was operated at a nominal rate of 1 frame/sec. Kodak TRI-X Pan<sup>®</sup> black-and-white film was used.

Dual television monitors were used throughout the test to further record the effects of planform area reduction on heating rates and to facilitate on-line cross-referencing.

Prior to each test run, the model was cleaned with a solvent and spray-painted with the phase-change coating. Trip ring balls were protected using cardboard shields during cleaning and painting. Model temperature was measured using a thermocouple probe. The model was then injected into the wind tunnel for about 30 seconds, during which time the progression of the isotherms, indicated by the demarcation between melted and unmelted coating, was continuously photographed. The model was then retracted from the wind tunnel and the cycle repeated for the next run.

## DATA REDUCTION

Thin film heat transfer coefficients were calculated for each melt line at which photographs were taken. The coefficients were calculated assuming three different recovery factors:

$$\frac{T_{aw}}{T_o} = 1.0$$

The following calculations were then performed to obtain thin film coefficients:

$$\bar{T} = \frac{T_{pc} - T_{IN}}{T_{aw} - T_{IN}}$$

$$T_{aw} = \left( \frac{T_{aw}}{T_o} \right) \times T_o$$

$$h = \frac{\beta \sqrt{k \rho C_p}}{\sqrt{t}}$$

where the flow parameter  $\beta$  results from iterative solution of:

$$1 - \bar{T} = e^{-\beta^2} (1 - \text{erf } \beta)$$

Theoretical thin film heat transfer coefficients and stagnation point heating rates were calculated using the equations given below:

$$h_s = (.768)(C_p)(P_r^{-.6})(\rho_w \mu_w)^{.1}(\rho_s \mu_s)^{.4} \sqrt{\frac{dV_e}{dx}}$$

where

$$P_r = \frac{\mu C_p}{k} \quad (\mu, C_p \text{ and } k \text{ for air})$$

$\frac{dV_e}{dx}$  = The streamwise velocity gradient along the model surface

# DATA REDUCTION (Concluded)

and

$$\frac{dV_e}{dx} = \frac{1}{N_r} \sqrt{2 R g T_o \left(1 - \frac{1}{P_1 P_2}\right)}$$

$N_r$  = Nose radius, .040 foot radius (1 foot full scale)

$$P_1 = \left[ \frac{\gamma + 1}{2} M_\infty^2 \right]^{\frac{\gamma}{\gamma - 1}}$$

$$P_2 = \left[ \left( \frac{\gamma + 1}{2 \gamma M_\infty^2} - (\gamma - 1) \right) \right]^{\frac{\gamma}{\gamma - 1}}$$

Locations of melt lines on the fuselage bottom centerline were manually measured using film. These locations were correlated with corresponding values of tunnel conditions and  $h/h_g$  calculated using the above equations. The result of this effort was a table giving  $h/h_g$  and frame number as a function of  $x/l$  for each group number. These data were then arranged into datasets and input to the DATAMAN system. Resulting data are tabulated in the appendix. Data off the lower surface centerline were used for qualitative analysis but were not digitized. Photographs taken during the test showing all melt lines may be obtained by contacting the aerothermodynamics analysis engineers.



#### REMARKS

Results of OH54A indicated that nonuniform transition patterns were caused by nonuniform ball heights. Therefore, before OH54B commenced, considerable effort was expended to obtain accurate and precise measurements of the height of each steel ball after it was spot welded onto a trip ring.

The standard deviation of the ball heights for each ring was reduced to produce a more uniform transition pattern. The tolerance of the ball heights was reduced to  $\pm 1.5\%$  of the ball height to accomplish this. Any ball with measurements outside the allowable tolerance was removed, replaced, and remeasured until the tolerance limit was satisfied.

The measurements were made using an optical measuring microscope with special lighting and measurement techniques. Particular attention was given to determining the exact point of contact between the ball and the trip ring. Ball height measurements were obtained with a  $10^{-5}$  inch precision and accurate to  $\pm 10^{-4}$  inch.

## RESULTS AND DISCUSSION

Uncertainties of the basic tunnel parameters were estimated from repeat calibrations of the PO and TO instruments and from the repeatability and uniformity of the tunnel flow during calibrations. The parameters PO, TO, and Mach No. with their uncertainties were then used to compute the uncertainties in the other parameters dependent on these by means of the Taylor series method of error propagation.

Uncertainty, percent			
<u>MACH NO.</u>	<u>PO</u>	<u>TO</u>	<u>RE/FT</u>
$\pm 0.3$	$\pm 0.5$	$\pm 0.5$	$\pm 1.2$

An estimate of the data precision of phase change point data is hampered by the fact that an observer must determine the location of the melt line. For this analysis, only uncertainties attributable to the measured parameters are considered. The parameters needed for the solution of the equation for the heat transfer coefficient,  $h$ , are  $T_{pc}$ ,  $T_{IN}$ ,  $T_{aw}$ ,  $\sqrt{\rho \kappa C_p}$ , and  $\Delta t$ . The table below summarizes the nominal uncertainties in these specific parameters.

<u>Parameter</u>	<u>Uncertainty, (+)</u>
$\Delta t$	$\pm 1.0$
$\sqrt{\rho \kappa C_p}$	$\pm 10.0$
$T_{IN}$	$\pm 0.5$
$T_o (T_{aw})$	$\pm 1.0$
$T_{pc}$	$\pm 0.5$

## RESULTS AND DISCUSSION (Concluded)

It should be remembered that the above uncertainties in  $T_{aw}$  and  $T_{pc}$  only reflect nominal measurement uncertainties. As previously mentioned, the interpretation of when phase change occurs (i.e.,  $T_{pc}$ ) is a matter of observer experience, and the "correct" assumption of what should be used for  $T_{aw}$  also requires engineering judgment. However, combining the above measurement uncertainties with the corresponding error sensitivity factor (derived by using the equation for the heat transfer coefficient,  $h$ , and taking the square root of the sum of the squares) yields the following:

for  $T_{pc} \leq 200^\circ\text{F}$ ,  $h$  uncertainty  $\approx \pm 13$  percent

for  $T_{pc} > 200^\circ\text{F}$ ,  $h$  uncertainty  $\approx \pm 11$  percent

#### REFERENCES

- 1) Hube, F. K., "NASA/RI OH54 Shuttle Transition Test Final Data,"  
AEDC VKI Tunnel-B Project V41B-82A, July 25, 1975.
- 2) Dye, W. H., "Pretest Information For Phase Change Paint Tests  
on .040 Scale 50% Forebody Models of the Rockwell International  
Space Shuttle Orbiter in the AEDC 'B' Hypersonic Wind Tunnel.  
OH54B," SD74-Sh-0254, Rockwell International, June, 1975.

TABLE I

## TEST CONDITIONS

$M_\infty$	$P_o$ , psia	$T_o$ , $^{\circ}R$	$h_g$ , $\frac{Btu}{ft^2 \cdot sec \cdot ^{\circ}R}$	$Re/ft \times 10^{-6}$
7.93	155	1270	0.014	0.75
7.94	210	1275	0.016	1.00
7.95	265	1280	0.018	1.25
7.96	320	1290	0.020	1.50
7.97	342	1292	0.021	1.60
7.97	375	1295	0.022	1.75
7.98	425	1300	0.023	2.00
7.98	490	1310	0.025	2.25
7.99	555	1320	0.026	2.50
7.99	610	1325	0.027	2.75
7.99	641	1323	0.028	2.875
7.99	670	1330	0.029	3.00
8.00	735	1330	0.030	3.25
8.00	800	1335	0.031	3.50

TABLE II.

DATASET/RUN NUMBER COLLATION SUMMARY

DATASET IDENTIFIER NO.	CONFIGURATION	UNIT REYNOLDS NO. MILLION PER FOOT	TRIP		ANGLE OF ATTACK					
					20		30		40	
			$x/l$	DIA	T <sub>pc</sub>	GROUP	T <sub>pc</sub>	GROUP	T <sub>pc</sub>	GROUP
1*	-2, ET Attach	2.5	-	-					300	220
2	Penetration	1.5	0.0518	0			200	213	200	212
3	-10 Model	2.0		↓			250	215	250	214
4	with trip	2.5		0.020			250		300	216
5	at fwd. location	1.0							200	186
6		1.5					250	198		
7		1.5					250	199	250	187
8		1.75					250	197	300	196
9		2.0							300	188
10		2.0					300	195	300	189
11		2.25					300	191	300	190
12		2.5					350	192	400	193
13		2.75					400	194		
14		1.25		0.025			200	211	300	210
15		1.5					250	199		
16		1.5					300	208	300	209
17		1.75					300	207	300	206
18		2.0					300	201	350	200
19		2.25					350	203	400	202
20		2.5					350	205	400	204
21		1.75	0.110	0.020			250	241	300	242
22	-11, Model with	2.0					300	240	300	239
23	trip at	2.25					300	237	350	238
24	mid location	2.5					350	236	350	235
25		2.75					350	233	400	234
26		3.0					350	232		

\* data unavailable.

TABLE II. - (Concluded)  
DATASET/RUN NUMBER COLLATION SUMMARY

DATASET IDENTIFIER NO.	CONFIGURATION	UNIT REYNOLDS NO. MILLION PER FOOT	TRIP $x/l$	DIA T <sub>pc</sub>	ANGLE OF ATTACK			
					20		30	
					T <sub>pc</sub>	GROUP	T <sub>pc</sub>	GROUP
27	-11 (Continued) -12, Model with trip at aft location	3.5	0.110	0.020			400	231
28		1.5	0.1684	0			200	182
29		2.0					250	184
30		2.5		0.020				
31		1.25						
32		1.5					200	139
33		1.5					200	143
34		1.75					250	136
35		2.0			200	137*	300	145
36		2.25			250	146*	350	148
37		2.5			250	147	400	
38		2.75			250	150		
39		3.0			250	151	350	2
40		3.25			300	154		
41		3.5			300	155		
42		0.75		0.025			300	156
43		1.0						
44		1.25					250	178
45		1.5					250	176
46		1.6					250	174
47		1.75				171*	250	172
48		2.0			200	168*	300	169
49		2.25			250	166	300	167
50		2.5			250	163	350	164
51		2.75			250	162		
52		3.0			300	159	350	160
53		3.5			300	158		

TABLE III .

MODEL DIMENSIONAL DATA

MODEL COMPONENT: BODY - B60

GENERAL DESCRIPTION: 50% Orbiter Forebody, Vehicle 140C.

NOTE: This body includes a small portion of the wing glove.

MODEL SCALE: 0.040

DRAWING NUMBER: VL70-000140C

<u>DIMENSIONS:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	<u>645.15</u>	<u>25.80</u>
Max Width	<u>330.00</u>	<u>13.20</u>



TABLE III (Continued)

MODEL DIMENSIONAL DATA

MODEL COMPONENT: CANOPY - C<sub>10</sub>

GENERAL DESCRIPTION: Configuration 4 canopy and windshield as used  
with B<sub>25</sub>. six glass panes in windshield

MODEL SCALE: 0.040

DRAWING NUMBER: VL70-000140B, 140C, 202B

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ( $X_0 = 434.643$ to $670$ ) In.	<u>235.357</u>	<u>9.414</u>
Max Width	<u>          </u>	<u>          </u>
Max Depth Glass - In.	<u>28.00</u>	<u>1.12</u>
Nose/windshield intersection, $X_0 =$	<u>434.643</u>	<u>17.386</u>

**Notes:**

1. Positive directions of angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

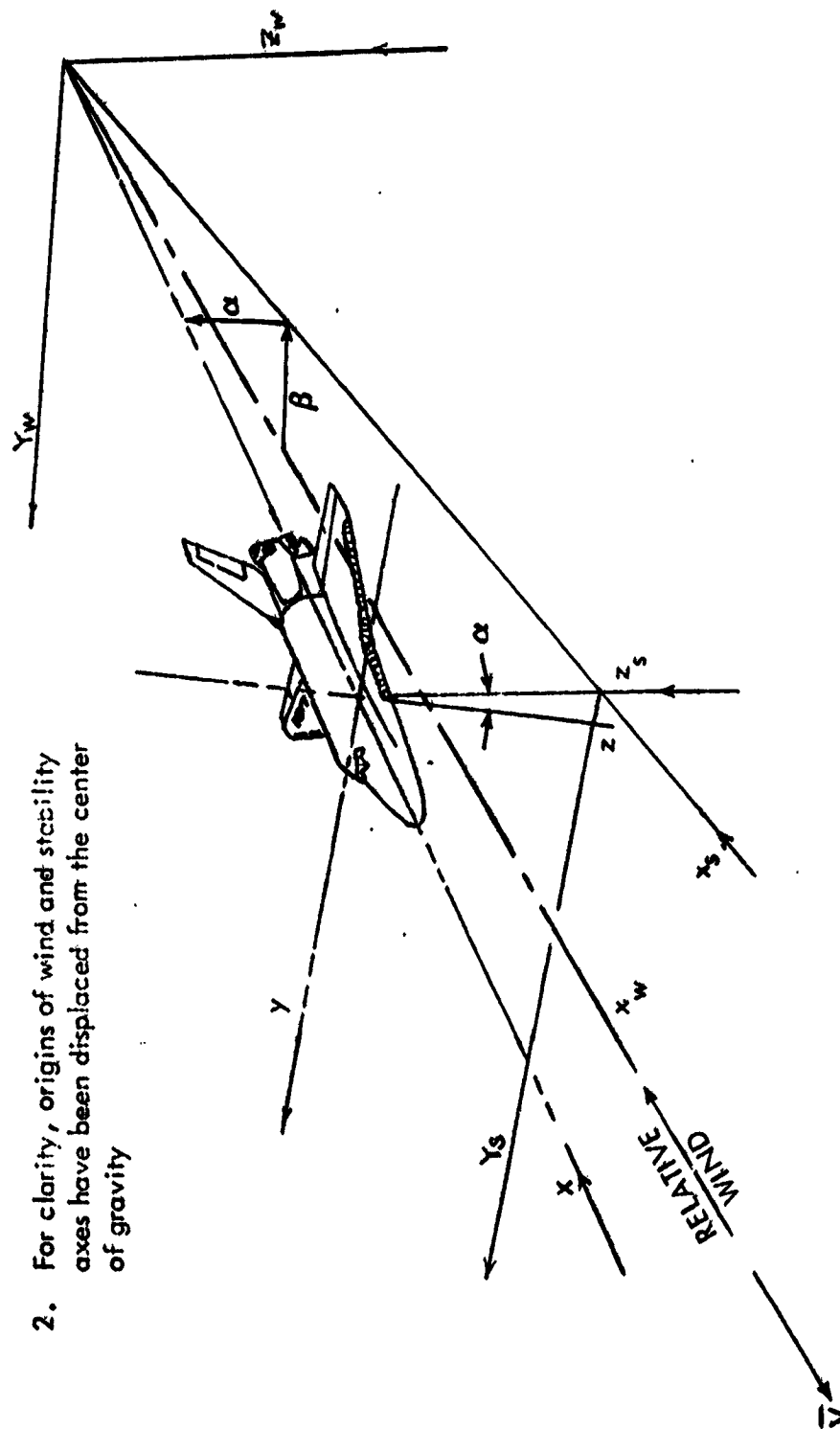
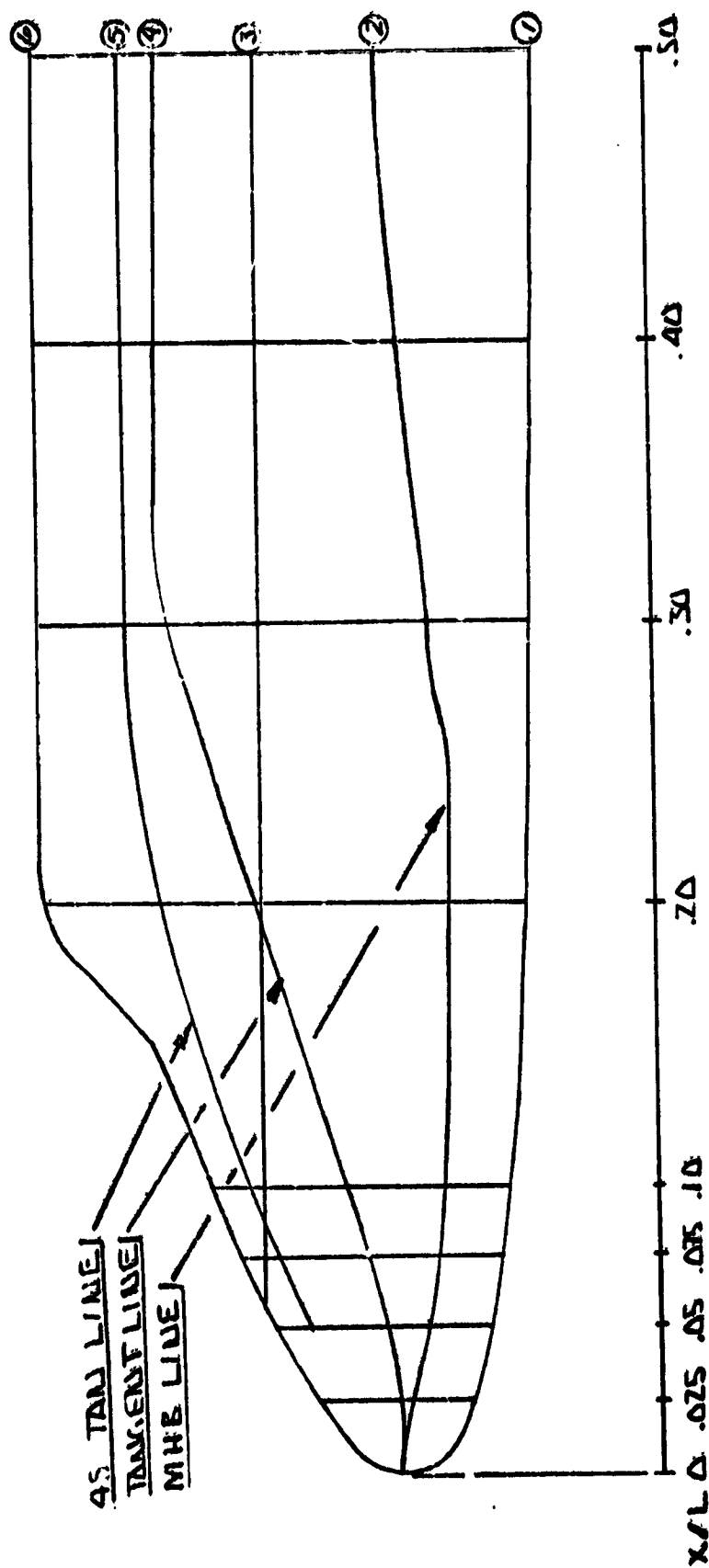
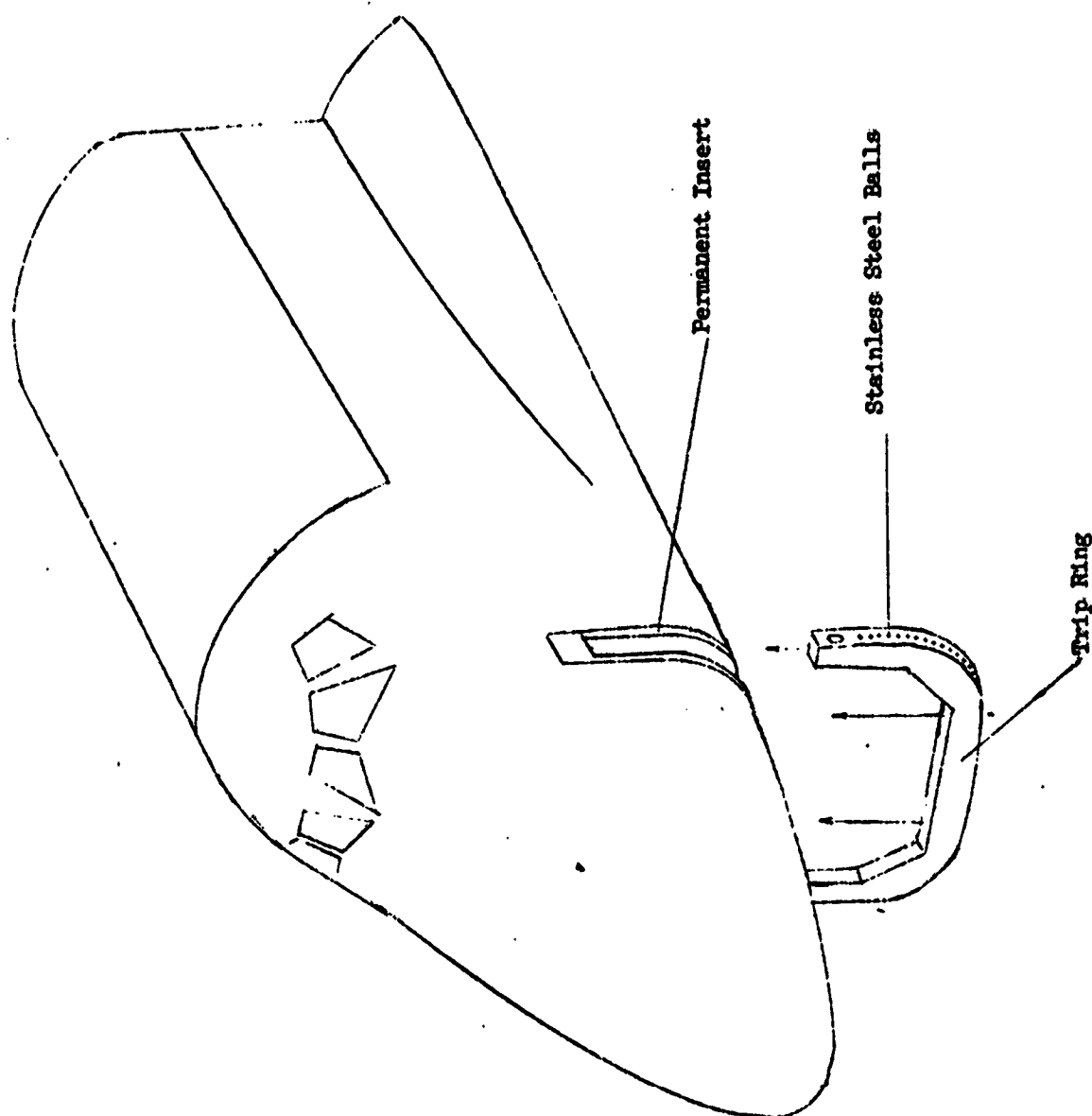


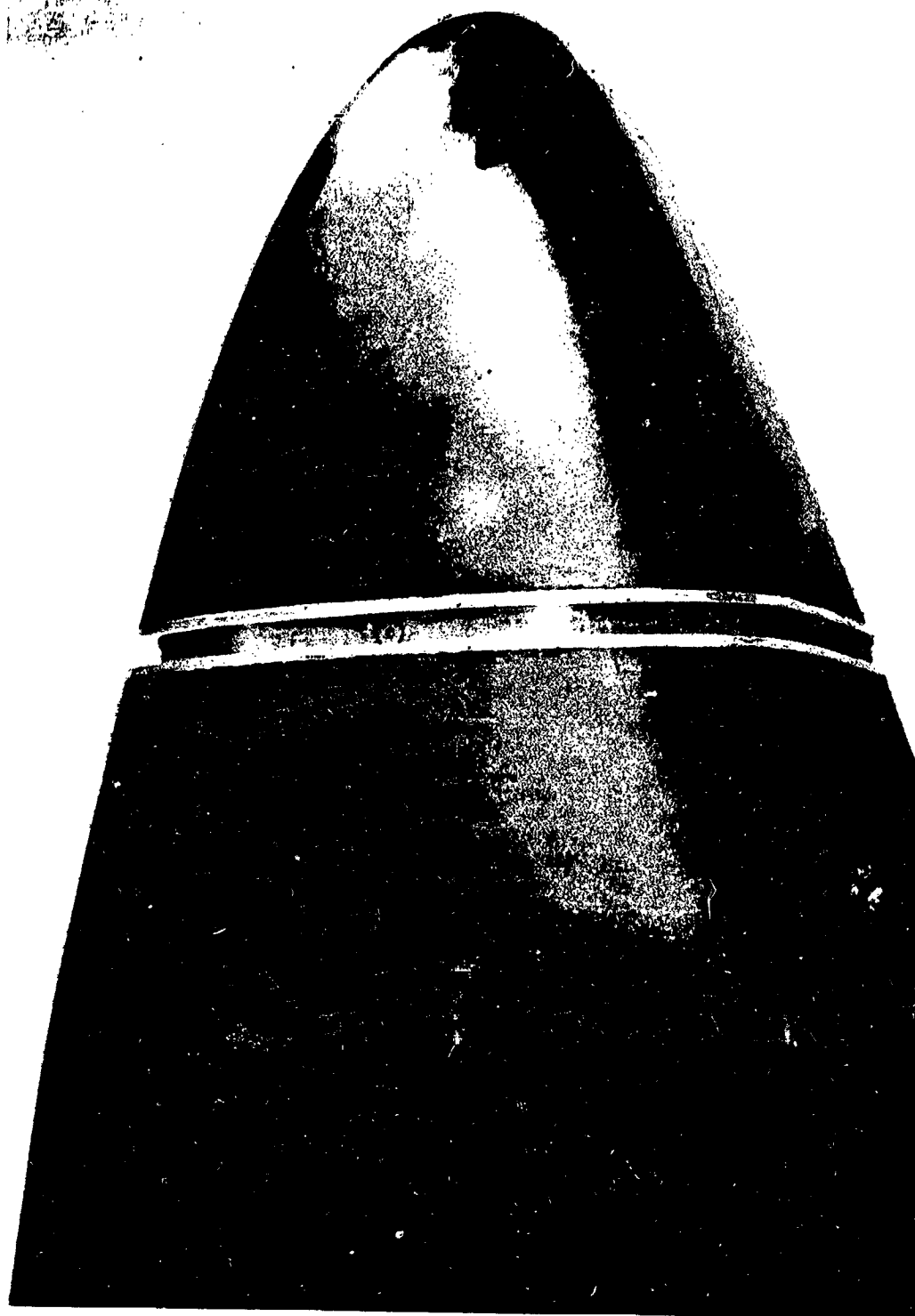
Figure 1. - Axis System.



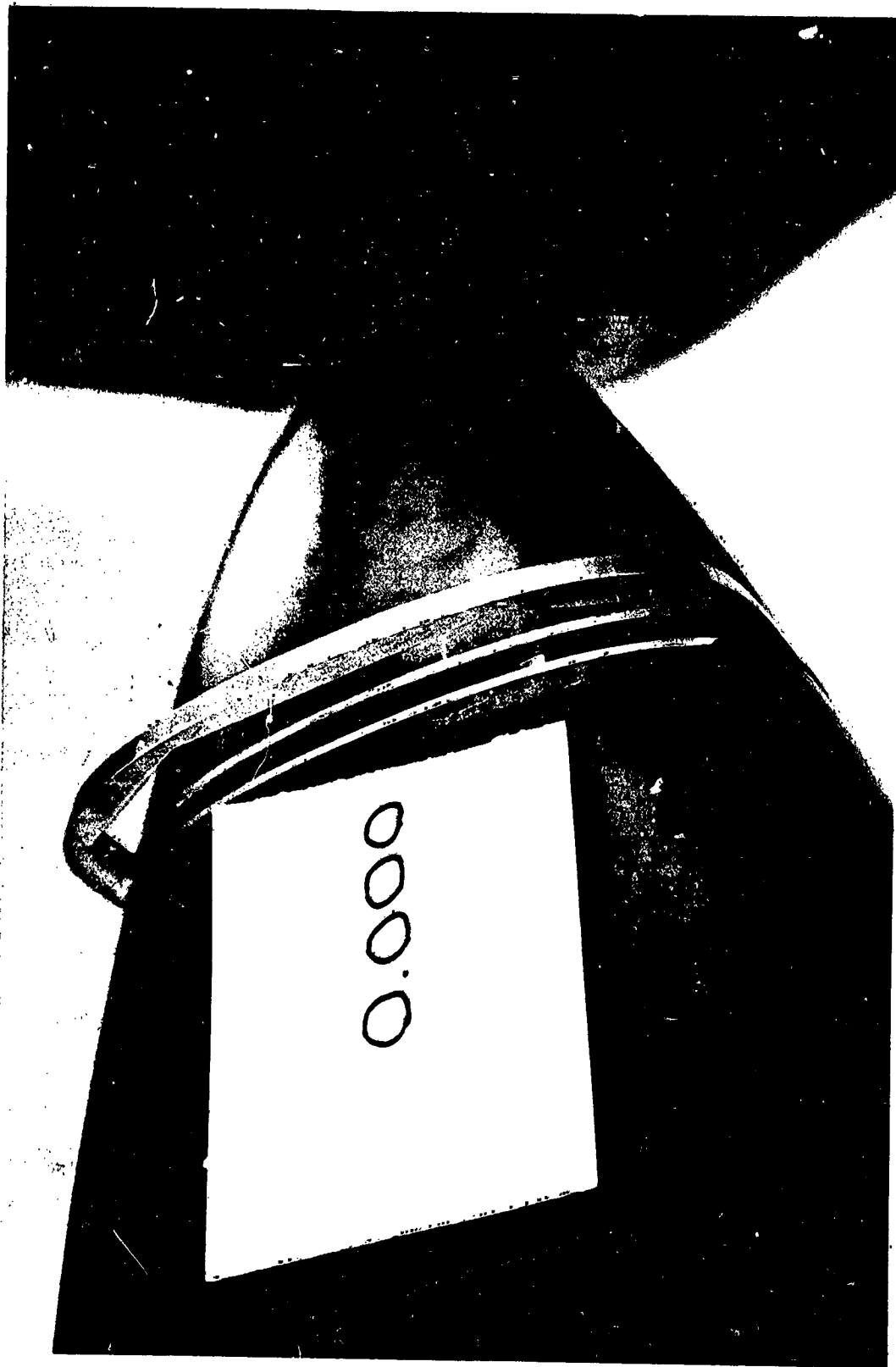
a. Paint Stripe Model Grid Locations  
Figure 2. - Model Sketches.



b. Model 82-10, -11, and -12 Trip Ring Insert  
Figure 2. - Model Sketches.



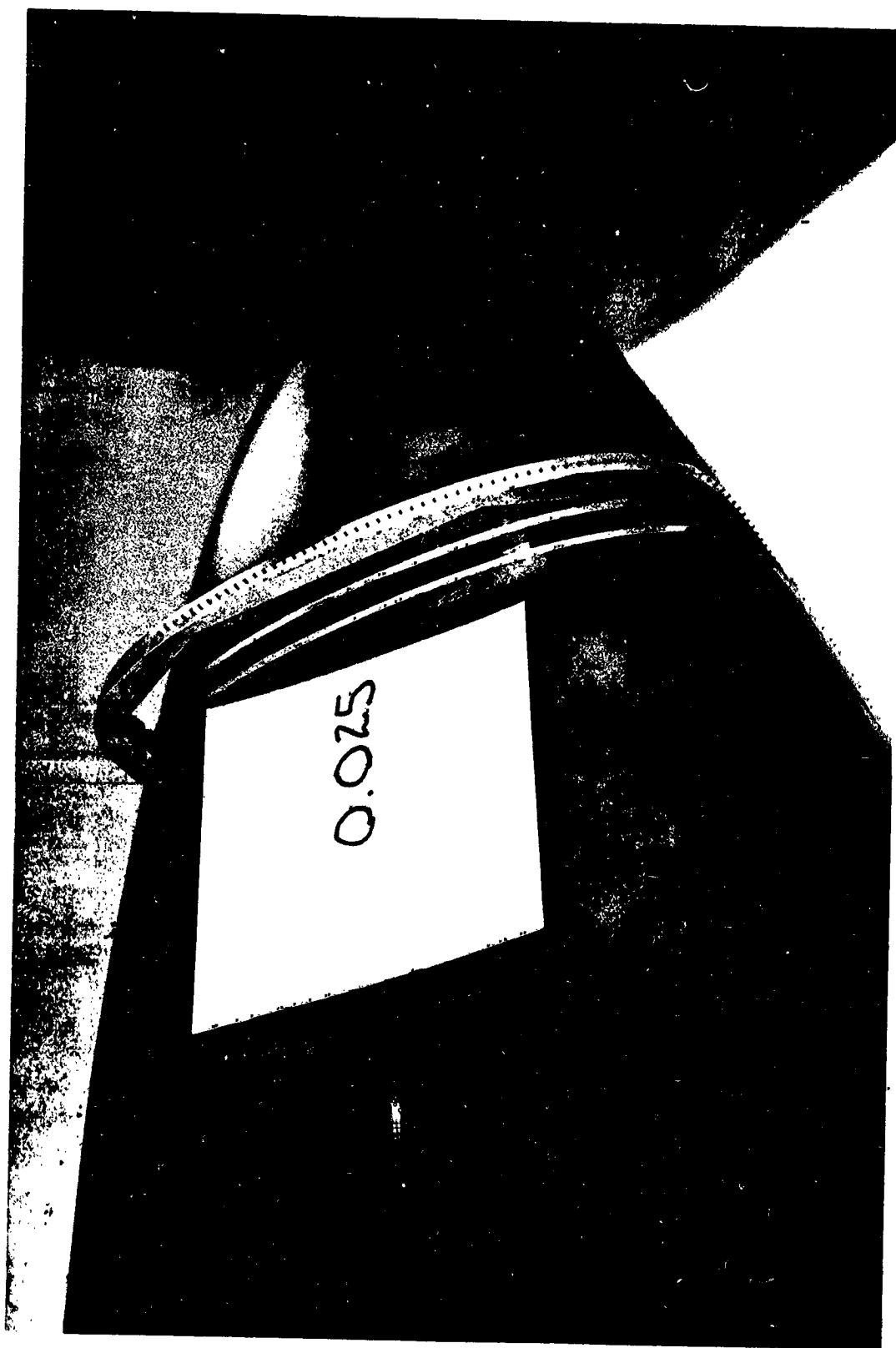
a. Stainless Steel Insert  
Figure 3. - Model Photographs.



b. Smooth Trip Ring  
Figure 3. - Model Photographs.

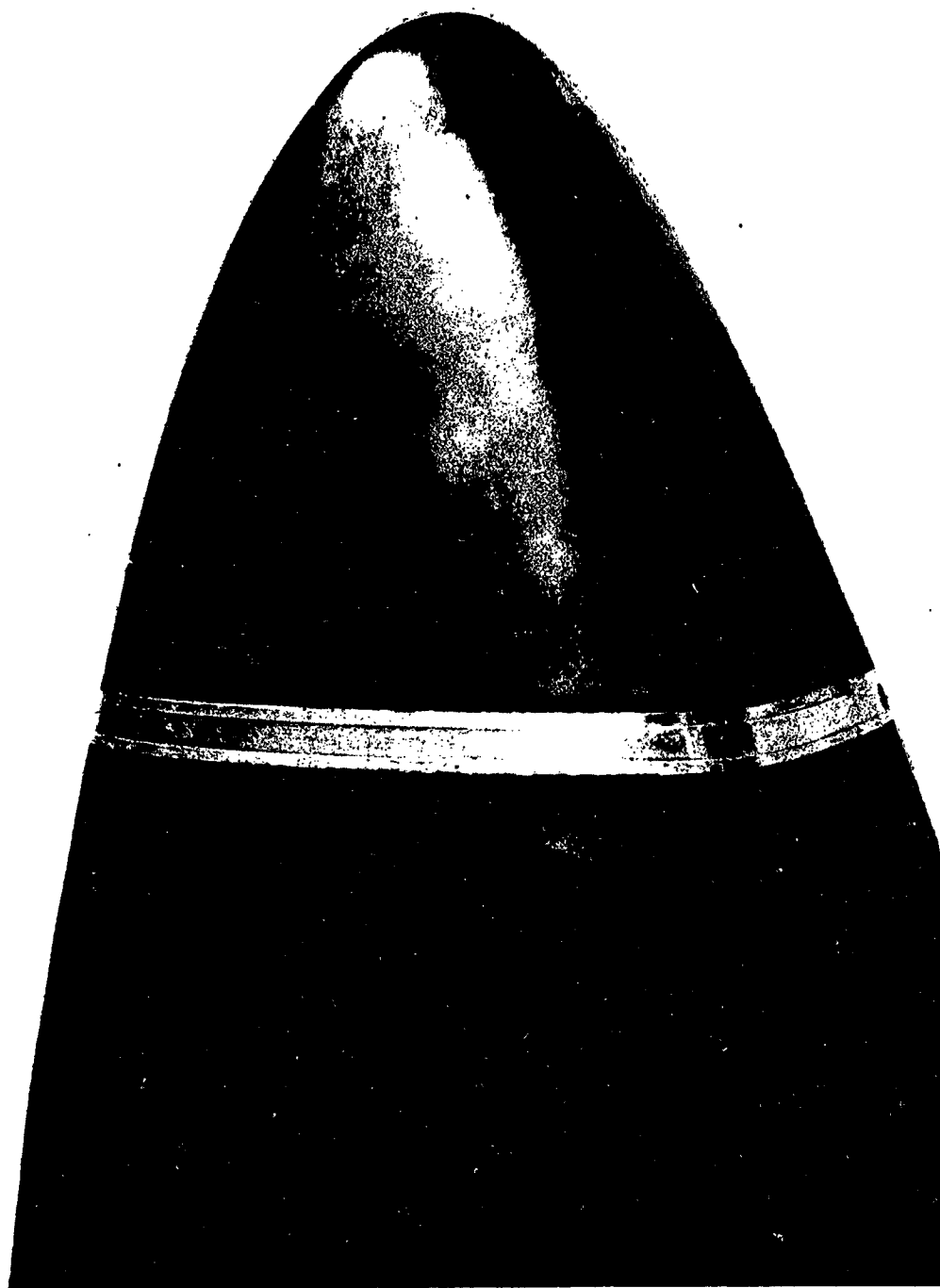


c. Trip Ring with 0.020 Inch Diameter Balls  
Figure 3. - Model Photographs.



d. Trip Pin with 0.025 Inch Diameter Balls  
Figure 3. - Model Photographs.

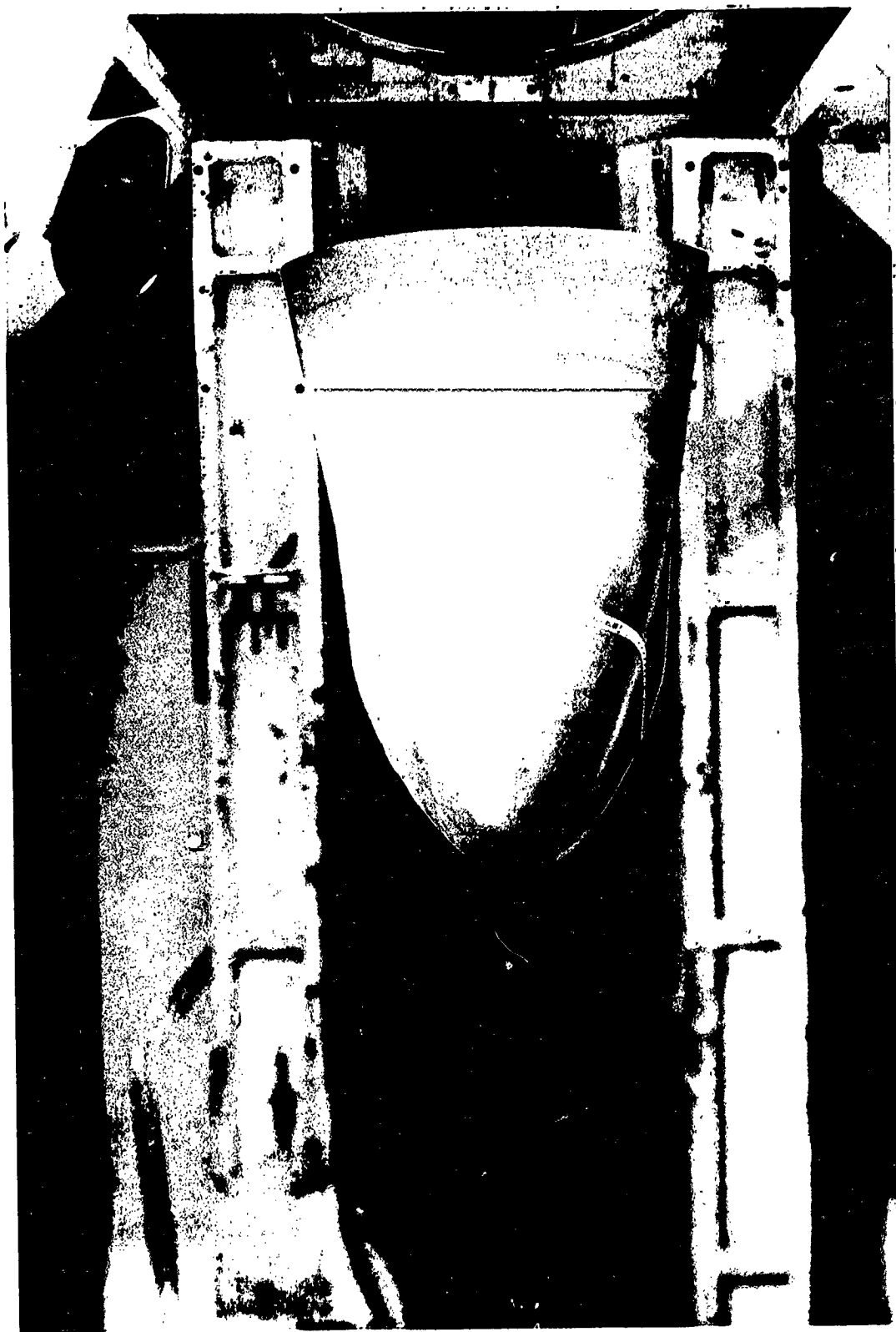




e. Installed Smooth Trip Ring  
Figure 3. - Model Photographs.

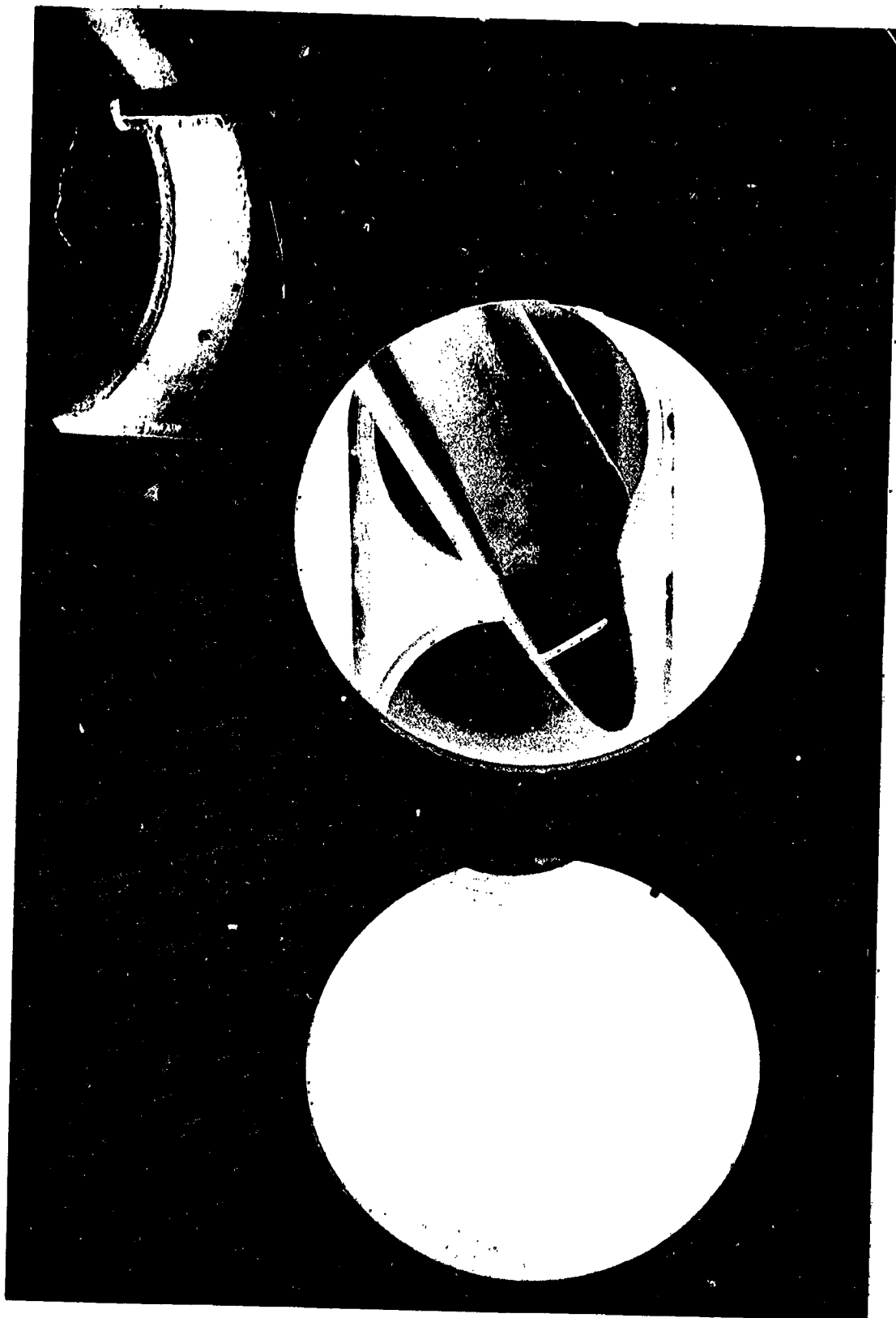


f. Grid Model  
Figure 3. - Model Photographs.



g. Model Installation, Tunnel Open  
Figure 3. - Model Photographs.

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h. Model Installation, Tunnel Closed  
Figure 3. - Model Photographs.

APPENDIX  
TABULATED SOURCE DATA

DATE 22 APR 77

TABULATED DATA - OH54B

PAGE 1

(RVM002) ( 05 MAR 77 )

AEDC V41B-82A.OH54B.-10MODEL.TRIP FMD

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP =  
YMRP =  
ZMRP =

1.0000 IN. XO  
1.0000 IN. YO  
1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

RUN NO. 212/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.280	.10700	1.50000	200.00000	212.00000	3781.00000
40.000	.320	.11400	1.50000	200.00000	212.00000	3779.00000
40.000	.360	.12200	1.50000	200.00000	212.00000	3777.00000
40.000	.390	.13300	1.50000	200.00000	212.00000	3775.00000
40.000	.410	.14800	1.50000	200.00000	212.00000	3773.00000
40.000	.440	.16900	1.50000	200.00000	212.00000	3771.00000
40.000	.465	.20100	1.50000	200.00000	212.00000	3769.00000
40.000	.495	.22700	1.50000	200.00000	212.00000	3768.00000
40.000	GRADIENT	.55760	.00000	.00042	.00000	-64.43079

(RVM003) ( 05 MAR 77 )

AEDC V41B-82A.OH54B.-10MODEL.TRIP FMD

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP =  
YMRP =  
ZMRP =

1.0000 IN. XO  
1.0000 IN. YO  
1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

RUN NO. 213/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.320	.07000	2.00000	200.00000	213.00000	3817.00000
30.000	.350	.07500	2.00000	200.00000	213.00000	3813.00000
30.000	.360	.07900	2.00000	200.00000	213.00000	3810.00000
30.000	.370	.08300	2.00000	200.00000	213.00000	3808.00000
30.000	.385	.08900	2.00000	200.00000	213.00000	3805.00000
30.000	.400	.09700	2.00000	200.00000	213.00000	3802.00000
30.000	.410	.10800	2.00000	200.00000	213.00000	3799.00000
30.000	.420	.11800	2.00000	200.00000	213.00000	3797.00000
30.000	.430	.13100	2.00000	200.00000	213.00000	3795.00000
30.000	.450	.14900	2.00000	200.00000	213.00000	3793.00000
30.000	.470	.17300	2.00000	200.00000	213.00000	3791.00000
30.000	GRADIENT	.72316	.00000	-.00055	-.00055	-188.52057

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TABULATED DATA - 0H54B

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AEDC V41B-82A.0H54B.-10MODEL.TRIP FMD

(RVH003) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XQ  
YMRP = 1.0000 IN. YQ  
ZMRP = 1.0000 IN. ZQ

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

RUN NO. 214/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.290	.12200	2.00000	250.00000	214.00000	3645.00000
40.000	.315	.13300	2.00000	250.00000	214.00000	3341.00000
40.000	.320	.14700	2.00000	250.00000	214.00000	3837.00000
40.000	.340	.15700	2.00000	250.00000	214.00000	3833.00000
40.000	.350	.18100	2.00000	250.00000	214.00000	3831.00000
40.000	.360	.19900	2.00000	250.00000	214.00000	3829.00000
40.000	.390	.22300	2.00000	250.00000	214.00000	3827.00000
40.000	.410	.23600	2.00000	250.00000	214.00000	3825.00000
40.000	.450	.32200	2.00000	250.00000	214.00000	3823.00000
GRADIENT	1.24679		.00000	-.00033	.00000	-139.90600

AEDC V41B-82A.0H54B.-10MODEL.TRIP FMD

(RVH004) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XQ  
YMRP = 1.0000 IN. YQ  
ZMRP = 1.0000 IN. ZQ

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

RUN NO. 215/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.350	.11300	2.50000	250.00000	215.00000	3879.00000
30.000	.375	.12200	2.50000	250.00000	215.00000	3867.00000
30.000	.390	.14800	2.50000	250.00000	215.00000	3861.00000
30.000	.410	.19000	2.50000	250.00000	215.00000	3856.00000
30.000	.450	.24300	2.50000	250.00000	215.00000	3853.00000
30.000	.495	.27500	2.50000	250.00000	215.00000	3852.00000
GRADIENT	1.26580		-.00001	.00000	.00000	-133.63597

TABULATED DATA - CH548

AEDC V41B-82A,CH548,-10MODEL,TRIP FWD

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
LREF = 1.0000 IN. YMRP = 1.0000 IN. YO  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. ZO  
SCALE = .0400

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

RUN NO. 216/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.280	.14000	2.50000	300.00000	216.00000	3994.00000
40.000	.290	.15100	2.50000	300.00000	216.00000	3900.00000
40.000	.300	.16500	2.50000	300.00000	216.00000	3536.00000
40.000	.315	.18400	2.50000	300.00000	216.00000	3532.00000
40.000	.335	.21500	2.50000	300.00000	216.00000	3637.00000
40.000	.350	.25500	2.50000	300.00000	216.00000	3534.00000
40.000	.375	.29000	2.50000	300.00000	216.00000	3882.00000
40.000	.405	.34700	2.50000	300.00000	216.00000	3880.00000
GRADIENT		1.68062	.00000	.00000	.00000	-192.76764

(RVH005) ( 05 MAR 77 )

AEDC V41B-82A,CH548,-10MODEL,TRIP FWD

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
LREF = 1.0000 IN. YMRP = 1.0000 IN. YO  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. ZO  
SCALE = .0400

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.000

RUN NO. 186/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.090	.17500	1.00000	200.00000	186.00000	2992.00000
40.000	.110	.16100	1.00000	200.00000	186.00000	2994.00000
40.000	.120	.14900	1.00000	200.00000	186.00000	2936.00000
40.000	.135	.14200	1.00000	200.00000	186.00000	2936.00000
40.000	.170	.12600	1.00000	200.00000	186.00000	2972.00000
40.000	.180	.12200	1.00000	200.00000	186.00000	2974.00000
40.000	.215	.11100	1.00000	200.00000	186.00000	2978.00000
40.000	.235	.10300	1.00000	200.00000	186.00000	2992.00000
GRADIENT		-.47491	.00000	-.00010	.00010	135.25137



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TABULATED DATA - 0454B

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AEDC V41B-82A.0454B.-10MODEL,TRIP FWD

(RVM006) ( 05 MAR 77 )

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

XMRP = 1.0000 IN. XO  
 YMRP = 1.0000 IN. YO  
 ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

RUN NO. 198/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.025	.15800	1.50000	250.00000	198.00000	3211.00000
30.000	.095	.14500	1.50000	250.00000	198.00000	3315.00000
30.000	.110	.13400	1.50000	250.00000	198.00000	3315.00000
30.000	.120	.12600	1.50000	250.00000	198.00000	3323.00000
30.000	.130	.11900	1.50000	250.00000	198.00000	3327.00000
GRADIENT		-.34677	-.00000	.00000	.00000	134.63230

AEDC V41B-82A.0454B.-10MODEL,TRIP FWD

(RVM007) ( 05 MAR 77 )

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

XMRP = 1.0000 IN. XO  
 YMRP = 1.0000 IN. YO  
 ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

RUN NO. 199/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.120	.13600	1.50000	250.00000	199.00000	3358.00000
30.000	.195	.14700	1.50000	250.00000	199.00000	3354.00000
30.000	.200	.16100	1.50000	250.00000	199.00000	3350.00000
30.000	.230	.18100	1.50000	250.00000	199.00000	3248.00000
30.000	.255	.20900	1.50000	250.00000	199.00000	3242.00000
30.000	.300	.25300	1.50000	250.00000	199.00000	3239.00000
GRADIENT		.59099	.00000	.00000	-.00014	-112.62289

RUN NO. 187/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.315	.12700	1.50000	250.00000	187.00000	3019.00000
40.000	.350	.14600	1.50000	250.00000	187.00000	3009.00000
40.000	.375	.16000	1.50000	250.00000	187.00000	3005.00000
40.000	.390	.17200	1.50000	250.00000	187.00000	2999.00000
40.000	.410	.19200	1.50000	250.00000	187.00000	2999.00000
40.000	.440	.22700	1.50000	250.00000	187.00000	2995.00000
40.000	.465	.25500	1.50000	250.00000	187.00000	2993.00000
40.000	.480	.29600	1.50000	250.00000	187.00000	2991.00000
40.000	.495	.35700	1.50000	250.00000	187.00000	2993.00000
GRADIENT		1.20027	.00000	.00045	-.00022	-153.74908

(RVM008) ( 05 MAR 77 )

TABULATED DATA - CH54B  
AEDC V41B-82A, CH54B, -10MODEL, TRIP FWD

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.750

REFERENCE DATA

SREF = 1.0000 SQ.FT.  
LREF = 1.0000 IN.  
BREF = 1.0000 IN.  
SCALE = .0400

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
50.000	.210	.13100	1.75000	250.00000	197.00000	3267.00000
30.000	.240	.15300	1.75000	250.00000	197.00000	3290.00000
30.000	.260	.19400	1.75000	250.00000	197.00000	3273.00000
30.000	.280	.21300	1.75000	250.00000	197.00000	3271.00000
30.000	.300	.23800	1.75000	250.00000	197.00000	3269.00000
30.000	.410	.27700	1.75000	250.00000	197.00000	3267.00000
GRADIENT		.72845	-.00000	.00021	-.00011	-69.09109

RUN NO. 197/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.055	.19500	1.75000	300.00000	196.00000	3249.00000
40.000	.150	.21300	1.75000	300.00000	196.00000	3245.00000
40.000	.175	.24400	1.75000	300.00000	196.00000	3240.00000
40.000	.200	.29500	1.75000	300.00000	196.00000	3235.00000
40.000	.260	.32800	1.75000	300.00000	196.00000	3233.00000
40.000	.400	.34900	1.75000	300.00000	196.00000	3232.00000
GRADIENT		.45922	-.00000	.00000	.00000	-52.33321

AEDC V41B-82A, CH54B, -10MODEL, TRIP FWD

(RVM009) ( 05 MAR 77 )

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

REFERENCE DATA

SREF = 1.0000 SQ.FT.  
LREF = 1.0000 IN.  
BREF = 1.0000 IN.  
SCALE = .0400

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.060	.22500	2.00000	300.00000	188.00000	3039.00000
40.000	.090	.24100	2.00000	300.00000	188.00000	3036.00000
40.000	.125	.27200	2.00000	300.00000	188.00000	3033.00000
40.000	.185	.30200	2.00000	300.00000	188.00000	3031.00000
40.000	.330	.32100	2.00000	300.00000	188.00000	3029.00000
40.000	.495	.34400	2.00000	300.00000	188.00000	3029.00000
GRADIENT		.24233	.00000	.00003	-.00002	-17.24128

RUN NO. 188/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

(RMV010) ( 05 MAR 77 )

AEDC V41B-82A, 0454B, -10MODEL, TRIP FWD

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
LREF = 1.0000 IN. YMRP = 1.0000 IN. Y0  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. Z0  
SCALE = .0400

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

RUN NO. 195/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.205	.18300	2.00000	300.00000	195.00000	3219.00000
30.000	.230	.22000	2.00000	300.00000	195.00000	3212.00000
30.000	.270	.25300	2.00000	300.00000	195.00000	3209.00000
30.000	.385	.28000	2.00000	300.00000	195.00000	3205.00000
GRADIENT		.48147	.00000	.00000	.00000	-59.76877

RUN NO. 189/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.055	.20350	2.00000	300.00000	189.00000	3054.00000
40.000	.070	.22500	2.00000	300.00000	189.00000	3051.00000
40.000	.120	.23700	2.00000	300.00000	189.00000	3058.00000
40.000	.140	.29700	2.00000	300.00000	189.00000	3055.00000
40.000	.185	.31600	2.00000	300.00000	189.00000	3054.00000
40.000	.490	.33900	2.00000	300.00000	189.00000	3053.00000
GRADIENT		.26007	.00000	.00000	.00000	-19.69245

(RMV011) ( 05 MAR 77 )

AEDC V41B-82A, 0454B, -10MODEL, TRIP FWD

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
LREF = 1.0000 IN. YMRP = 1.0000 IN. Y0  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. Z0  
SCALE = .0400

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.250

RUN NO. 191/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.150	.15100	2.25000	300.00000	191.00000	3115.00000
30.000	.185	.16200	2.25000	300.00000	191.00000	3111.00000
30.000	.185	.18100	2.25000	300.00000	191.00000	3106.00000
30.000	.200	.21200	2.25000	300.00000	191.00000	3100.00000
30.000	.250	.24600	2.25000	300.00000	191.00000	3097.00000
30.000	.250	.25900	2.25000	300.00000	191.00000	3095.00000
30.000	.400	.27300	2.25000	300.00000	191.00000	3095.00000
GRADIENT		.49559	.00000	.00000	.00000	-73.23154

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TABULATED DATA - 04548

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AEDC V418-82A, 04548, -10MODEL, TRIP FWD

(RVMD11) (05 MAR 77)

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

XMRP = 1.0000 IN. X0  
 YMRP = 1.0000 IN. Y0  
 ZMRP = 1.0000 IN. Z0

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.250

RUN NO. 190/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.055	.23000	2.25000	300.00000	190.00000	3043.00000
40.000	.060	.29500	2.25000	300.00000	190.00000	3078.00000
40.000	.080	.31600	2.25000	300.00000	190.00000	3077.00000
40.000	.130	.34200	2.25000	300.00000	190.00000	3076.00000
	GRADIENT	1.12860	.00000	.00027	.00000	-64.65607

AEDC V418-82A, 04548, -10MODEL, TRIP FWD

(RVMD12) (05 MAR 77)

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

XMRP = 1.0000 IN. X0  
 YMRP = 1.0000 IN. Y0  
 ZMRP = 1.0000 IN. Z0

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

RUN NO. 192/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.060	.24300	2.50000	350.00000	192.00000	3138.00000
30.000	.065	.26600	2.50000	350.00000	192.00000	3135.00000
30.000	.110	.27600	2.50000	350.00000	192.00000	3134.00000
30.000	.440	.28700	2.50000	350.00000	192.00000	3133.00000
	GRADIENT	.07539	.00000	.00002	.00000	-8.13397

RUN NO. 193/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.055	.29200	2.50000	400.00000	193.00000	3165.00000
40.000	.060	.33500	2.50000	400.00000	193.00000	3160.00000
40.000	.120	.34600	2.50000	400.00000	193.00000	3159.00000
	GRADIENT	.55860	-.00000	.00049	.00000	-60.51421

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TABULATED DATA - 0454B

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AEDC V41B-82A, 0454B, -10MODEL, TRIP FWD

(RVMD13) (05 MAR 77)

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

MACH = 8.000 RNAL = 2.750

## PARAMETRIC DATA

RUN NO. 194/ 0 RN/L = 2.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.060	.26200	2.75000	400.00000	194.00000	3132.00000
30.000	.080	.31500	2.75000	400.00000	194.00000	3184.00000
30.000	.090	.31400	2.75000	400.00000	194.00000	3185.00000
30.000	.130	.28900	2.75000	400.00000	194.00000	3188.00000
30.000	.150	.28100	2.75000	400.00000	194.00000	3189.00000
30.000	.400	.27400	2.75000	400.00000	194.00000	3190.00000
GRADIENT		-.05840	-.00000	.00000	-.00003	7.54845

AEDC V41B-82A, 0454B, -10MODEL, TRIP FWD

(RVMD14) (05 MAR 77)

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

MACH = 8.000 RN/L = 1.250

## PARAMETRIC DATA

RUN NO. 211/ 0 RN/L = 1.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.340	.08000	1.25000	200.00000	211.00000	3739.00000
30.000	.370	.08600	1.25000	200.00000	211.00000	3734.00000
30.000	.400	.09100	1.25000	200.00000	211.00000	3730.00000
30.000	.420	.10000	1.25000	200.00000	211.00000	3725.00000
30.000	.455	.10700	1.25000	200.00000	211.00000	3722.00000
30.000	.470	.11200	1.25000	200.00000	211.00000	3720.00000
GRADIENT		.24877	-.00000	-.00003	-.00041	-146.77838

RUN NO. 210/ 0 RN/L = 1.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.455	.17700	1.25000	300.00000	210.00000	3536.00000
40.000	.460	.18100	1.25000	300.00000	210.00000	3535.00000
40.000	.470	.18500	1.25000	300.00000	210.00000	3534.00000
40.000	.475	.20200	1.25000	300.00000	210.00000	3533.00000
GRADIENT		1.07999	.00000	.00000	.00000	-439.93355

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AEDC V41B-82A, 0454B, -10MODEL, TRIP FWD

REFERENCE DATA

SREF = 1.0000 SQ.FT.    XMRP = 1.0000 IN. XO  
 LREF = 1.0000 IN.    YMRP = 1.0000 IN. YO  
 BREF = 1.0000 IN.    ZMRP = 1.0000 IN. ZO  
 SCALE = .0400

PARAMETRIC DATA

MACH = 8.000    RN/L = 1.500

RUN NO. 199/ 0    RN/L = 1.50    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.120	.13500	1.50000	250.00000	199.00000	3338.00000
30.000	.195	.14700	1.50000	250.00000	199.00000	3354.00000
30.000	.200	.16100	1.50000	250.00000	199.00000	3350.00000
30.000	.230	.18100	1.50000	250.00000	199.00000	3346.00000
30.000	.255	.20900	1.50000	250.00000	199.00000	3342.00000
30.000	.380	.25800	1.50000	250.00000	199.00000	3338.00000
GRADIENT		.69899	.00000		-.00014	-118.82089

AEDC V41B-82A, 0454B, -10MODEL, TRIP FWD

REFERENCE DATA

SREF = 1.0000 SQ.FT.    XMRP = 1.0000 IN. XO  
 LREF = 1.0000 IN.    YMRP = 1.0000 IN. YO  
 BREF = 1.0000 IN.    ZMRP = 1.0000 IN. ZO  
 SCALE = .0400

PARAMETRIC DATA

MACH = 8.000    RN/L = 1.500

RUN NO. 288/ 0    RN/L = 1.50    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.270	.17800	1.50000	300.00000	208.00000	3519.00000
30.000	.300	.20500	1.50000	300.00000	208.00000	3511.00000
30.000	.320	.21300	1.50000	300.00000	208.00000	3509.00000
30.000	.340	.22300	1.50000	300.00000	208.00000	3507.00000
30.000	.398	.24200	1.50000	300.00000	208.00000	3504.00000
GRADIENT		.51192	.00000	-.00075	-.00033	-117.00709

RUN NO. 209/ 0    RN/L = 1.50    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.250	.20300	1.50000	300.00000	209.00000	3651.00000
40.000	.290	.24900	1.50000	300.00000	209.00000	3642.00000
40.000	.330	.28300	1.50000	300.00000	209.00000	3638.00000
40.000	.398	.30700	1.50000	300.00000	209.00000	3636.00000
GRADIENT		.72597	.00000	-.00037	.00000	-94.29329

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TABULATED DATA - 0M548

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AEDC V41B-82A, 0M548, -10MODEL, TRIP FWD

(RVND17) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
1.0000 IN. YMRP = 1.0000 IN. Y0  
1.0000 IN. ZMRP = 1.0000 IN. Z0  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.750

RUN NO. 207/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.200	.17000	1.75000	300.00000	207.00000	3542.00000
30.000	.249	.19100	1.75000	300.00000	207.00000	3576.00000
30.000	.270	.21700	1.75000	300.00000	207.00000	3571.00000
30.000	.285	.23000	1.75000	300.00000	207.00000	3569.00000
30.000	.329	.24600	1.75000	300.00000	207.00000	3557.00000
GRADIENT		.66401	-.00000	.00000	-.00037	-130.43827

RUN NO. 206/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.125	.32300	1.75000	300.00000	206.00000	3540.00000
GRADIENT		.00000	.00000	.00000	.00000	.00000

AEDC V41B-82A, 0M548, -10MODEL, TRIP FWD

(RVND18) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
1.0000 IN. YMRP = 1.0000 IN. Y0  
1.0000 IN. ZMRP = 1.0000 IN. Z0  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

RUN NO. 201/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.150	.18900	2.00000	300.00000	201.00000	3419.00000
30.000	.195	.22900	2.00000	300.00000	201.00000	3412.00000
30.000	.260	.24700	2.00000	300.00000	201.00000	3410.00000
30.000	.350	.25700	2.00000	300.00000	201.00000	3403.00000
GRADIENT		.31039	.00000	.00000	.00000	-44.07114

RUN NO. 200/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.050	.28700	2.00000	350.00000	200.00000	3391.00000
40.000	.115	.30500	2.00000	358.00000	200.00000	3389.00000
40.000	.132	.32600	2.00000	350.00000	200.00000	3387.00000
40.000	.470	.33900	2.00000	350.00000	200.00000	3386.00000
GRADIENT		.10014	.00000	.00000	.00000	-9.27340

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TABULATED DATA - 0H54B

AEDC V41B-82A, 0H54B, -10MODEL, TRIP FWD

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(RVM019) ( 05 MAR 77 )

REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. XQ  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

RUN NO. 203/ 0 RN/L = 2.29 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.270	.24900	2.25000	350.00000	203.00000	3474.00000
30.000	.398	.26300	2.25000	358.00000	203.00000	3472.00000
30.000	GRADIENT	.11667	.00000	.00000	.00000	-16.66175

RUN NO. 202/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.060	.30500	2.25000	400.00300	202.00000	3446.00000
40.000	.120	.31200	2.25000	400.00000	202.00000	3445.00000
40.000	.400	.32700	2.25000	400.00000	202.00000	3443.00000
40.000	GRADIENT	.06123	.00000	.00000	.00000	-8.23998

AEDC V41B-82A, 0H54B, -10MODEL, TRIP FWD

(RVM020) ( 05 MAR 77 )

REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0080 SQ.FT. XMRP = 1.0000 IN. XQ  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

RUN NO. 205/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.320	.26100	2.50000	350.00000	205.00000	3518.00000
30.000	.370	.27000	2.50000	350.00000	205.00000	3517.00000
30.000	.450	.28000	2.50000	350.00000	205.00000	3516.00000
30.000	GRADIENT	.14419	.00000	.00000	.00000	-15.11210

RUN NO. 204/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.080	.34100	2.50000	400.00000	204.00000	3494.00000
40.000	.120	.33000	2.50000	400.00000	204.00000	3493.00000
40.000	GRADIENT	-.27500	.00000	.00119	.00000	24.99580

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.250



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TABULATED DATA - 0454B

AEDC V41B-82A, 0454B, -11MODEL, TRIP MID

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(RVM021) ( 05 MAR 77 )

PARAMETRIC DATA

REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

XMRP = 1.0000 SQ.FT.  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO  
.0400

MACH = 8.000 RN/L = 1.750

RUN NO. 241/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 30.000 X/L .210 H/HREF .16100 TPC RN/L 1.75000 241.00000 4576.00000  
GRADIENT .00000 .00000 .00000 .00000 .00000

RUN NO. 242/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 40.000 X/L .000 H/HREF .15500 TPC RN/L 1.75000 242.00000 4601.00000  
40.000 .220 .25300 242.00000 4578.00000  
40.000 .250 .31700 242.00000 4573.00000  
GRADIENT .57227 .00000 -109.21307

(RVM022) ( 05 MAR 77 )

AEDC V41B-82A, 0454B, -11MODEL, TRIP MID

PARAMETRIC DATA

REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

XMRP = 1.0000 SQ.FT.  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO  
.0400

MACH = 8.000 RN/L = 2.000

RUN NO. 249/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 30.000 X/L .225 H/HREF .14000 TPC RN/L 2.00000 249.00000 4527.00000  
30.000 .250 .16300 249.00000 4517.00000  
30.000 .280 .22100 249.00000 4504.00000  
30.000 .330 .26800 249.00000 4493.00000  
GRADIENT 1.26495 .00000 -267.01344

RUN NO. 239/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00  
ALPHA 40.000 X/L .140 H/HREF .19100 TPC RN/L 2.00000 239.00000 4483.00000  
40.000 .150 .21100 239.00000 4473.00000  
40.000 .170 .24000 239.00000 4475.00000  
40.000 .190 .25500 239.00000 4471.00000  
40.000 .200 .32100 239.00000 4469.00000  
40.000 .270 .34400 239.00000 4468.00000  
GRADIENT 1.21189 .00000 -109.44639

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TABULATED DATA - 0H54B

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AEDC V41B-82A.0H54B.-11MODEL,TRIP MID

(RVM023) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0008 SQ.FT. XMRP = 1.0000 IN. XO  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.250

RUN NO. 237/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.190	.15500	2.25000	300.00000	237.00000	4428.00000
30.000	.200	.18500	2.25000	300.00000	237.00000	4420.00000
30.000	.220	.20900	2.25000	300.00000	237.00000	4416.00000
30.000	.240	.22500	2.25000	300.00000	237.00000	4414.00000
30.000	.260	.25800	2.25000	300.00000	237.00000	4411.00000
30.000	.320	.27200	2.25000	300.00000	237.00000	4410.00000
	GRADIENT	.86529	.00000	.00045	-.00023	-118.31975

RUN NO. 238/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.130	.24500	2.25000	350.00000	238.00000	4454.00000
40.000	.140	.31800	2.25000	350.00000	238.00000	4446.00000
40.000	.190	.34900	2.25000	350.00000	238.00000	4444.00000
	GRADIENT	1.37419	.00000	-.00062	.00000	-125.81113

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

RUN NO. 236/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.200	.19400	2.50000	350.00000	236.00000	4373.00000
30.000	.250	.27100	2.50000	350.00000	236.00000	4360.00000
	GRADIENT	1.54000	.00000	.00000	.00000	-259.93761

RUN NO. 235/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.120	.26000	2.50000	350.00000	235.00000	4344.00000
40.000	.130	.35000	2.50000	350.00000	235.00000	4337.00000
	GRADIENT	10.00002	-.00015	.00000	.00000	-700.07442

AEDC V41B-82A.0H54B.-11MODEL,TRIP MID

(RVM024) ( 05 MAR 77 )

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TABULATED DATA - OH54B

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AEDC V41B-82A, OH54B, -11 MODEL, TRIP MID

(RVM025) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0008 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.750

RUN NO. 233/ 0 RN/L = 2.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.170	.20400	2.75000	350.00000	233.00000	4342.00000
30.000	.190	.26700	2.75000	350.00000	233.00000	4293.00000
30.000	.420	.27800	2.75000	350.00000	233.00000	4292.00000
	GRADIENT	.19249	.00000	-.00013	.00000	-25.13058

RUN NO. 234/ 0 RN/L = 2.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.125	.32800	2.75000	400.00000	234.00000	4322.00000
40.000	.185	.34000	2.75000	400.00000	234.00000	4321.00000
40.000	.450	.35300	2.75000	400.00000	234.00000	4320.00000
	GRADIENT	.06849	-.00000	-.00004	-.00004	-5.43313

AEDC V41B-82A, OH54B, -11 MODEL, TRIP MID

(RVM026) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 3.000

RUN NO. 232/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.330	.28500	3.00000	350.00000	232.00000	4270.00000
30.000	.430	.30200	3.00000	350.00000	232.00000	4269.00000
	GRADIENT	.16000	.00000	.00000	.00000	-9.99756

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TABULATED DATA - 04548

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(RVM027) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 3.500

RUN NO. 231/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.155	.30300	3.50000	400.00000	231.00000	4249.00000
30.000	.330	.28100	3.50000	400.00000	231.00000	4251.00000
30.000	.420	.29200	3.50000	400.00000	231.00000	4250.00000
	GRADIENT	-.05301	.00000	.00000	.00000	4.81783

AEDC V41B-82A.04548.-12MODEL.TRIP AFT

(RVM028) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

RUN NO. 181/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.265	.08500	1.50000	200.00000	181.00000	2780.00000
40.000	.280	.09500	1.50000	200.00000	181.00000	2777.00000
40.000	.320	.10100	1.50000	200.00000	181.00000	2775.00000
40.000	.370	.10900	1.50000	200.00000	181.00000	2773.00000
40.000	.410	.12900	1.50000	200.00000	191.00000	2769.00000
40.000	.460	.14400	1.50000	200.00000	181.00000	2767.00000
40.000	.470	.15500	1.50000	200.00000	181.00000	2766.00000
40.000	.475	.16700	1.50000	200.00000	181.00000	2765.00000
40.000	.485	.18400	1.50000	200.00000	191.00000	2764.00000
40.000	.495	.20700	1.50000	200.00000	181.00000	2763.00000
	GRADIENT	.42445	.00000	.00000	-.00000	-66.80511

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TABULATED DATA - 04548

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AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

(RM10-9) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
1.0000 IN. YMRP = 1.0000 IN. Y0  
1.0000 IN. ZMRP = 1.0000 IN. Z0  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

RUN NO.	182/ 0	RN/L = 2.00	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	RN/L
30.000	.320	.05000	2.00000
30.000	.335	.06200	2.00000
30.000	.355	.06600	2.00000
30.000	.365	.07000	2.00000
30.000	.385	.07500	2.00000
30.000	.400	.08100	2.00000
30.000	.410	.08800	2.00000
30.000	.415	.09400	2.00000
30.000	.430	.10200	2.00000
30.000	.450	.11200	2.00000
30.000	.465	.12500	2.00000
30.000	.475	.14600	2.00000
30.000	.495	.18000	2.00000
GRADIENT	.61368	.00000	.00000

RUN NO.	183/ 0	RN/L = 2.00	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	RN/L
40.000	.270	.02500	2.00000
40.000	.285	.10000	2.00000
40.000	.300	.10600	2.00000
40.000	.320	.11200	2.00000
40.000	.330	.12100	2.00000
40.000	.370	.13500	2.00000
40.000	.390	.15600	2.00000
40.000	.400	.17200	2.00000
40.000	.420	.19300	2.00000
40.000	.450	.22400	2.00000
40.000	.470	.24600	2.00000
40.000	.495	.27700	2.00000
GRADIENT	.73183	.00016	.00000

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TABULATED DATA - 0H54B

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(RM030) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

RUN NO. 184/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.08/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.345	.08400	2.50000	250.00000	184.00000	2648.00000
30.000	.360	.09000	2.50000	250.00000	184.00000	2884.00000
30.000	.370	.09700	2.50000	250.00000	184.00000	2890.00000
30.000	.385	.10700	2.50000	250.00000	184.00000	2876.00000
30.000	.400	.11700	2.50000	250.00000	184.00000	2873.00000
30.000	.410	.13000	2.50000	250.00000	184.00000	2870.00000
30.000	.420	.14200	2.50000	250.00000	184.00000	2859.00000
30.000	.430	.15700	2.50000	250.00000	184.00000	2856.00000
30.000	.450	.17900	2.50000	250.00000	184.00000	2854.00000
30.000	.465	.21300	2.50000	250.00000	184.00000	2852.00000
30.000	.480	.24000	2.50000	250.00000	184.00000	2851.00000
GRADIENT	1.14523		.00000	.00116	.00116	-202.93786

RUN NO. 185/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.285	.11900	2.50000	300.00000	185.00000	2923.00000
40.000	.290	.12700	2.50000	300.00000	185.00000	2919.00000
40.000	.300	.13800	2.50000	300.00000	185.00000	2915.00000
40.000	.315	.15600	2.50000	300.00000	185.00000	2910.00000
40.000	.330	.17700	2.50000	300.00000	185.00000	2906.00000
40.000	.340	.20100	2.50000	300.00000	185.00000	2903.00000
40.000	.370	.23500	2.50000	300.00000	185.00000	2900.00000
40.000	.385	.25300	2.50000	300.00000	185.00000	2898.00000
40.000	.395	.27400	2.50000	300.00000	185.00000	2897.00000
40.000	.420	.30100	2.50000	300.00000	185.00000	2896.00000
40.000	.465	.33300	2.50000	300.00000	185.00000	2895.00000
GRADIENT	1.25415		-.00000	-.00066	-.00016	-147.14283

DATE 22 APR 77

TABULATED DATA - 0H54B

AEDC V41B-82A.0H54B.-12MODEL.TRIIP AFT

REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

.0400

RUN NO. 141/ 0 RN/L = 1.25

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.300	.12000	1.25000	250.00000	141.00000	1575.00000
40.000	.315	.12500	1.25000	250.00000	141.00000	1572.00000
40.000	.330	.13000	1.25000	250.00000	141.00000	1569.00000
40.000	.375	.14200	1.25000	250.00000	141.00000	1553.00000
40.000	.405	.15900	1.25000	250.00000	141.00000	1557.00000
40.000	.470	.17900	1.25000	250.00000	141.00000	1552.00000
40.000	.480	.19500	1.25000	250.00000	141.00000	1549.00000
40.000	GRADIENT	.39341	-.00000	.00000	-.00027	-137.43550

AEDC V41B-82A.0H54B.-12MODEL.TRIIP AFT

(RM032) ( 05 MAR 77 )

REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

RUN NO. 138/ 0 RN/L = 1.50

GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.240	.14300	1.50000	250.00000	138.00000	1463.00000
40.000	.245	.14300	1.50000	250.00000	138.00000	1462.00000
40.000	.250	.15300	1.50000	250.00000	138.00000	1459.00000
40.000	.255	.16100	1.50000	250.00000	138.00000	1457.00000
40.000	.260	.17600	1.50000	250.00000	138.00000	1454.00000
40.000	.265	.18100	1.50000	250.00000	138.00000	1453.00000
40.000	.270	.18300	1.50000	250.00000	138.00000	1452.00000
40.000	.275	.20300	1.50000	250.00000	138.00000	1449.00000
40.000	.280	.21300	1.50000	250.00000	138.00000	1447.00000
40.000	.290	.22300	1.50000	250.00000	138.00000	1448.00000
40.000	.300	.23500	1.50000	250.00000	138.00000	1445.00000
40.000	.310	.25000	1.50000	250.00000	138.00000	1445.00000
40.000	.330	.26900	1.50000	250.00000	138.00000	1444.00000
40.000	.380	.28700	1.50000	250.00000	138.00000	1444.00000
40.000	GRADIENT	1.18733	-.00000	-.00000	-.00023	-140.33761

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

(RM031) ( 05 MAR 77 )

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.250

DATE 22 APR 77

TABULATED DATA - 0H54B

(RM033) ( 05 MAR 77 )

AEDC V418-62A, 0H54B, -12MODEL, TRIP AFT

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. XQ  
LREF = 1.0000 IN. YMRP = 1.0000 IN. YO  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. ZO  
SCALE = .0400

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

RUN NO. 139/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.330	.07200	1.50000	200.00000	139.00000	1542.00000
30.000	.355	.07300	1.50000	200.00000	139.00000	1499.00000
30.000	.365	.07900	1.50000	200.00000	139.00000	1496.00000
30.000	.385	.08300	1.50000	200.00000	139.00000	1493.00000
30.000	.405	.09300	1.50000	200.00000	139.00000	1499.00000
30.000	.425	.09300	1.50000	200.00000	139.00000	1485.00000
30.000	.450	.10400	1.50000	200.00000	139.00000	1483.00000
30.000	.470	.11400	1.50000	200.00000	139.00000	1483.00000
30.000	.485	.12700	1.50000	200.00000	139.00000	1477.00000
GRADIENT			.00000	-.00029	.00000	-161.79370

RUN NO. 140/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.250	.15500	1.50000	250.00000	140.00000	1525.00000
40.000	.265	.17500	1.50000	250.00000	140.00000	1521.00000
40.000	.275	.19500	1.50000	250.00000	140.00000	1518.00000
40.000	.290	.22200	1.50000	250.00000	140.00000	1515.00000
40.000	.315	.24500	1.50000	250.00000	140.00000	1513.00000
40.000	.330	.26700	1.50000	250.00000	140.00000	1512.00000
40.000	.360	.28900	1.50000	250.00000	140.00000	1511.00000
GRADIENT			-.00000	-.00095	-.00024	-122.89427



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TABULATED DATA - 04548

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AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

(RVM034) ( 05 MAR 77 )

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
 LREF = 1.0000 IN. YMRP = 1.0000 IN. YO  
 BREF = 1.0000 IN. ZMRP = 1.0000 IN. ZO  
 SCALE = .0480

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.750

RUN NO. 143/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.255	.10300	1.75000	200.00000	143.00000	1648.00000
30.000	.265	.13300	1.75000	200.00000	143.00000	1612.00000
30.000	.280	.16400	1.75000	200.00000	143.00000	1609.00000
30.000	.305	.20300	1.75000	200.00000	143.00000	1607.00000
	GRADIENT	1.94978	.00001	.00000	.00134	-199.10694

RUN NO. 142/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.225	.20000	1.75000	300.00000	142.00000	1600.00000
40.000	.230	.21700	1.75000	300.00000	142.00000	1597.00000
40.000	.240	.23700	1.75000	300.00000	142.00000	1594.00000
40.000	.245	.25500	1.75000	300.00000	142.00000	1592.00000
40.000	.250	.27600	1.75000	300.00000	142.00000	1590.00000
40.000	.275	.30400	1.75000	300.00000	142.00000	1589.00000
40.000	.470	.32100	1.75000	300.00000	142.00000	1587.00000
	GRADIENT	.38421	.00000	-.00019	.00000	-35.89345

DATE 22 APR 77

TABULATED DATA - 04548

(RVM035) ( 05 MAR 77 )

AEDC V41B-82A.04548.-12MODEL.TRIIP AFT

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.000

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
LREF = 1.0000 IN. YMRP = 1.0000 IN. YO  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. ZO  
SCALE = .0400

RUN NO. 136/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.225	12700	2.00000	250.00000	136.00000	1370.00000
30.000	.230	13700	2.00000	250.00000	136.00000	1357.00000
30.000	.235	14000	2.00000	250.00000	135.00000	1366.00000
30.000	.240	15300	2.00000	250.00000	135.00000	1363.00000
30.000	.245	17600	2.00000	250.00000	136.00000	1350.00000
30.000	.255	18500	2.00000	250.00000	136.00000	1358.00000
30.000	.260	20500	2.00000	250.00000	136.00000	1356.00000
30.000	.270	21700	2.00000	250.00000	136.00000	1355.00000
30.000	.275	23300	2.00000	250.00000	136.00000	1354.00000
30.000	.285	25200	2.00000	250.00000	136.00000	1353.00000
30.000	GRADIENT	2.13666	.00000	.00000	-.00082	-265.45355

RUN NO. 135/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.230	.22000	2.00000	250.00000	135.00000	1343.00000
40.000	.235	.23500	2.00000	250.00000	135.00000	1341.00000
40.000	.240	.25400	2.00000	250.00000	135.00000	1339.00000
40.000	.250	.29500	2.00000	250.00000	135.00000	1335.00000
40.000	.260	.31300	2.00000	250.00000	135.00000	1335.00000
40.000	GRADIENT	3.24826	.00000	-.00526	.00000	-270.72058

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TABULATED DATA - 0H54B

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AEDC V41B-82A, 0H54B, -12MODEL, TRIP AFT

(RVM036) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

## PARAMETRIC DATA

MACH = 8.000 RV/L = 2.250

RUN NO. 145/ 0 RV/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.220	.19400	2.25000	300.00000	145.00000	1662.00000
30.000	.230	.22200	2.25000	300.00000	145.00000	1658.00000
30.000	.240	.23100	2.25000	300.00000	145.00000	1657.00000
30.000	.275	.24200	2.25000	300.00000	145.00000	1656.00000
30.000	.455	.25400	2.25000	300.00000	145.00000	1655.00000
GRADIENT		.16620	-.00000	-.00015	-.00007	-17.54867

RUN NO. 144/ 0 RV/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.200	.26500	2.25000	350.00000	144.00000	1640.00000
40.000	.205	.30300	2.25000	350.00000	144.00000	1635.00000
40.000	.210	.33000	2.25000	350.00000	144.00000	1634.00000
40.000	.480	.34700	2.25000	350.00000	144.00000	1633.00000
GRADIENT		.17631	.00000	.00007	.00003	-13.84960

AEDC V41B-82A, 0H54B, -12MODEL, TRIP AFT

(RVM037) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

## PARAMETRIC DATA

MACH = 8.000 RV/L = 2.500

RUN NO. 147/ 0 RV/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.200	.09400	2.50000	250.00000	147.00000	1731.00000
20.000	.220	.11400	2.50000	250.00000	147.00000	1722.00000
20.000	.225	.13500	2.50000	250.00000	147.00000	1716.00000
20.000	.240	.16200	2.50000	250.00000	147.00000	1712.00000
20.000	.260	.18100	2.50000	250.00000	147.00000	1710.00000
GRADIENT		1.53316	-.00002	.00000	.00000	-355.94848

AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

REFERENCE DATA

SREF = 1.0000 SQ.FT.    XMRP = 1.0000 IN. XO  
 LREF = 1.0000 IN.    YMRP = 1.0000 IN. YO  
 BREF = 1.0000 IN.    ZMRP = 1.0000 IN. ZO  
 SCALE = .0400

MACH = 8.000    RN/L = 2.500

RUN NO. 148/ 0    RN/L = 2.50    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/REF	RN/L	TPC	GROUP	FRAME
30.000	.215	.20100	2.50000	350.00000	148.00000	1704.00000
30.000	.230	.23800	2.50000	350.00000	148.00000	1757.00000
30.000	.235	.25300	2.50000	350.00000	148.00000	1754.00000
30.000	.275	.27000	2.50000	350.00000	148.00000	1753.00000
30.000	.465	.28100	2.50000	350.00000	148.00000	1752.00000
GRADIENT		.21699	.00000	-.00014	.00000	-28.07550

RUN NO. 149/ 0    RN/L = 2.50    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/REF	RN/L	TPC	GROUP	FRAME
40.000	.190	.26900	2.50000	400.00000	149.00000	1789.00000
40.000	.200	.32200	2.50000	400.00000	149.00000	1782.00000
40.000	.260	.33300	2.50000	400.00000	149.00000	1781.00000
40.000	.470	.34500	2.50000	400.00000	149.00000	1780.00000
GRADIENT		.17490	.00000	.00000	.00000	-19.41187

AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

REFERENCE DATA

SREF = 1.0000 SQ.FT.    XMRP = 1.0000 IN. XO  
 LREF = 1.0000 IN.    YMRP = 1.0000 IN. YO  
 BREF = 1.0000 IN.    ZMRP = 1.0000 IN. ZO  
 SCALE = .0400

MACH = 8.000    RN/L = 2.750

RUN NO. 150/ 0    RN/L = 2.75    GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/REF	RN/L	TPC	GROUP	FRAME
20.000	.260	.10500	2.75000	250.00000	150.00000	1853.00000
20.000	.255	.11700	2.75000	250.00000	150.00000	1849.00000
20.000	.275	.13400	2.75000	250.00000	150.00000	1845.00000
20.000	.290	.15400	2.75000	250.00000	150.00000	1842.00000
20.000	.300	.16200	2.75000	250.00000	150.00000	1841.00000
20.000	.470	.17200	2.75000	250.00000	150.00000	1840.00000
GRADIENT		.23909	.00000	-.00016	-.00008	-40.18931

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TABULATED DATA - 04548

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AEDC V418-82A, 04548, -12MODEL, TRIP AFT

(RYM039) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
1.0000 IN. YMRP = 1.0000 IN. Y0  
1.0000 IN. ZMRP = 1.0000 IN. Z0  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 3.000

RUN NO. 151/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.235	.13100	3.00000	250.00000	151.00000	1641.00000
20.000	.245	.13900	3.00000	250.00000	151.00000	1878.00000
20.000	.325	.15900	3.00000	250.00000	151.00000	1873.00000
20.000	.355	.15400	3.00000	250.00000	151.00000	1374.00000
20.000	.425	.16900	3.00000	250.00000	151.00000	1971.00000
	GRADIENT	.18445	.00000	.00000	.00000	-47.60741

RUN NO. 152/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.195	.20700	3.00000	350.00000	152.00000	1903.00000
30.000	.205	.26500	3.00000	350.00000	152.00000	1895.00000
30.000	.450	.27800	3.00000	350.00000	152.00000	1894.00000
	GRADIENT	.17475	.00000	-.00205	.00000	-18.81726

RUN NO. 153/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.180	.27900	3.00000	400.00000	153.00000	1922.00000
40.000	.190	.34200	3.00000	400.00000	153.00000	1916.00000
40.000	.470	.35700	3.00000	400.00000	153.00000	1915.00000
	GRADIENT	.16882	.00000	-.00005	-.00005	-14.57562

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
1.0000 IN. YMRP = 1.0000 IN. Y0  
1.0000 IN. ZMRP = 1.0000 IN. Z0  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 3.250

RUN NO. 154/ 0 RN/L = 3.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.220	.14200	3.25000	300.00000	154.00000	1945.00000
20.000	.240	.17700	3.25000	300.00000	154.00000	1938.00000
	GRADIENT	1.75000	.00000	.00000	.00000	-349.99907

AEDC V418-82A, 04548, -12MODEL, TRIP AFT

(RYM040) ( 05 MAR 77 )

DATE 22 APR 77

TABULATED DATA - 04548

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AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

(RVN041) ( 05 MAR 77 )

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

XMRP = 1.0000 IN. XO  
 YMRP = 1.0000 IN. YO  
 ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 3.500

RUN NO. 155/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.210	.12900	3.50000	300.00000	155.00000	1908.00000
20.000	.225	.15300	3.50000	300.00000	155.00000	1962.00000
	GRADIENT	1.59999	.00000	.00000	.00000	-399.98026

RUN NO. 156/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.185	.21500	3.50000	300.00000	156.00000	1985.00000
30.000	.190	.27900	3.50000	300.00000	156.00000	1979.00000
30.000	.400	.29500	3.50000	300.00000	156.00000	1978.00000
30.000	.480	.31700	3.50000	300.00000	156.00000	1977.00000
	GRADIENT	.23927	.00000	.00000	.00000	-17.78920

RUN NO. 157/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.175	.29000	3.50000	400.00000	157.00000	2001.00000
40.000	.190	.35400	3.50000	400.00000	157.00000	1926.00000
40.000	.470	.39500	3.50000	400.00000	157.00000	1995.00000
	GRADIENT	.21485	.00000	.00000	.00000	-12.82625

AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

(RVN042) ( 05 MAR 77 )

## REFERENCE DATA

SREF = 1.0000 SQ.FT.  
 LREF = 1.0000 IN.  
 BREF = 1.0000 IN.  
 SCALE = .0400

XMRP = 1.0000 IN. XO  
 YMRP = 1.0000 IN. YO  
 ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = .750

RUN NO. 180/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.185	.09700	.75000	169.00000	180.00000	2741.00000
40.000	.210	.09123	.75000	169.00000	180.00000	2744.00000
40.000	.440	.08600	.75000	169.00000	180.00000	2747.00000
	GRADIENT	-.03463	.00000	.00000	.00000	19.35826

DATE 22 APR 77

TABULATED DATA - OH548

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AEDC V41B-82A.OH548.-12MODEL.TRIP AFT

(RVM043) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.000

RUN NO. 179/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.290	.11200	1.00000	200.00000	179.00000	2709.00000
40.000	.305	.12000	1.00000	200.00000	179.00000	2706.00000
40.000	.330	.12900	1.00000	200.00000	179.00000	2703.00000
40.000	.370	.14100	1.00000	200.00000	179.00000	2700.00000
40.000	.400	.15100	1.00000	200.00000	179.00000	2699.00000
40.000	.410	.16300	1.00000	200.00000	179.00000	2698.00000
40.000	.470	.17900	1.00000	200.00000	179.00000	2694.00000
40.000	.480	.20100	1.00000	200.00000	179.00000	2692.00000
GRADIENT		.41845	.00000	.00000	.00000	-81.41465

AEDC V41B-82A.OH548.-12MODEL.TRIP AFT

(RVM044) ( 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 1.250

RUN NO. 178/ 0 RN/L = 1.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.390	.12600	1.25000	250.00000	178.00000	2690.00000
30.000	.400	.13700	1.25000	250.00000	178.00000	2674.00000
30.000	.430	.15400	1.25000	250.00000	178.00000	2667.00000
30.000	.450	.16300	1.25000	250.00000	178.00000	2664.00000
30.000	.470	.18400	1.25000	250.00000	178.00000	2659.00000
GRADIENT		.66920	-.00001	-.00272	-.00136	-243.74867

RUN NO. 177/ 0 RN/L = 1.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.230	.15300	1.25000	250.00000	177.00000	2624.00000
40.000	.240	.16300	1.25000	250.00000	177.00000	2621.00000
40.000	.250	.17800	1.25000	250.00000	177.00000	2617.00000
40.000	.260	.20000	1.25000	250.00000	177.00000	2613.00000
40.000	.275	.23100	1.25000	250.00000	177.00000	2609.00000
40.000	.305	.26400	1.25000	250.00000	177.00000	2605.00000
40.000	.470	.39500	1.25000	250.00000	177.00000	2624.00000
GRADIENT		.60505	-.00000	-.00011	.00000	-59.96481

(RVM045) ( 05 MAR 77 )

TABULATED DATA - 04548  
AEDC V41B-82A.04548.-12MODEL.TRIP AFT

PARAMETRIC DATA

MACH = 8.000 RN/L = 1.500

REFERENCE DATA

SREF = 1.0000 SQ.FT. YMRP = 1.0000 IN. XO  
LREF = 1.0000 IN. YMRP = 1.0000 IN. YO  
BREF = 1.0000 IN. ZMRP = 1.0000 IN. ZO  
SCALE = .0400

RUN NO. 176/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.240	.12500	1.50000	250.00000	176.00000	2534.00000
30.000	.255	.14400	1.50000	250.00000	176.00000	2586.00000
30.000	.270	.17000	1.50000	250.00000	176.00000	2579.00000
30.000	.280	.19300	1.50000	250.00000	176.00000	2575.00000
30.000	.300	.21900	1.50000	250.00000	176.00000	2572.00000
30.000	.315	.23000	1.50000	250.00000	176.00000	2571.00000
30.000	.400	.24200	1.50000	250.00000	176.00000	2570.00000
30.000	.475	.25800	1.50000	250.00000	176.00000	2569.00000
30.000	GRADIENT	.50950	-.00000	.00017	-.00000	-79.89713

RUN NO. 175/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.200	.17000	1.50000	250.00000	175.00000	2558.00000
40.000	.215	.20900	1.50000	250.00000	175.00000	2552.00000
40.000	.225	.25700	1.50000	250.00000	175.00000	2548.00000
40.000	.240	.32900	1.50000	250.00000	175.00000	2545.00000
40.000	.255	.53400	1.50000	250.00000	175.00000	2542.00000
40.000	GRADIENT	5.64535	.00000	.00000	.00000	-240.89815



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TABULATED DATA - OH54B

(RVM046J) ( 05 MAR 77 )

AEDC V41B-82A, OH54B, -12MODEL, TRIP AFT

PARAMETRIC DATA

REFERENCE DATA

MACH = 8.030 RN/L = 1.600

SREF = 1.0000 SQ.FT.  
LREF = 1.0000 IN.  
BREF = 1.0000 IN.  
SCALE = .0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

RUN NO.	174/ 0	RN/L = 1.60	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	TPC
30.000	.230	.12300	174.00000 2553.00000
30.000	.245	.14200	174.00000 2525.00000
30.000	.250	.16000	174.00000 2520.00000
30.000	.265	.18700	174.00000 2515.00000
30.000	.305	.23500	174.00000 2510.00000
30.000	.460	.24900	174.00000 2509.00000
30.000	GRADIENT	.49462	.00000 -77.95958

(RVM047J) ( 05 MAR 77 )

AEDC V41B-82A, OH54B, -12MODEL, TRIP AFT

PARAMETRIC DATA

REFERENCE DATA

MACH = 8.000 RN/L = 1.750

SREF = 1.0000 SQ.FT.  
LREF = 1.0000 IN.  
BREF = 1.0000 IN.  
SCALE = .0400

XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

RUN NO.	172/ 0	RN/L = 1.75	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	TPC
30.000	.230	.12500	172.00000 2469.00000
30.000	.255	.19200	172.00000 2453.00000
30.000	.275	.22300	172.00000 2450.00000
30.000	.300	.23500	172.00000 2449.00000
30.000	.490	.25300	172.00000 2448.00000
30.000	GRADIENT	.34334	.00000 -47.16129

RUN NO.	173/ 0	RN/L = 1.75	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	TPC
40.000	.200	.18700	173.00000 2498.00000
40.000	.225	.30500	173.00000 2492.00000
40.000	.470	.32100	173.00000 2481.00000
40.000	GRADIENT	.32235	.00000 -39.19315

TABULATED DATA - 0454B

DATE 22 APR 77

(RVMD48) ( 05 MAR 77 )

AEDC V418-82A,0454B,-12MODEL,TRIP AFT

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.080

REFERENCE DATA

SREF = 1.0000 SQ.FT.  
LREF = 1.0000 IN.  
BREF = 1.0000 IN.  
SCALE = .0400

XMRP = 1.0000 IN. X0  
YMRP = 1.0000 IN. Y0  
ZMRP = 1.0000 IN. Z0

RUN NO. 169/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.215	.12700	2.00000	250.00000	169.00000	2378.00000
30.000	.230	.16500	2.00000	250.00000	169.00000	2369.00000
30.000	.240	.18800	2.00000	250.00000	169.00000	2366.00000
30.000	.260	.22200	2.00000	250.00000	169.00000	2363.00000
30.000	GRADIENT	2.10292	.00000	.00000	.00000	-322.80691

RUN NO. 170/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.190	.20701	2.00000	300.00000	170.00000	2399.00000
40.000	.205	.3130	2.00000	300.00000	170.00000	2389.00000
40.000	.480	.33501	2.00000	300.00000	170.00000	2388.00000
40.000	GRADIENT	.27984	.00000	-.00010	-.00005	-22.60113

AEDC V418-82A,0454B,-12MODEL,TRIP AFT

(RVMD49) ( 05 MAR 77 )

PARAMETRIC DATA

MACH = 8.000 RN/L = 2.250

REFERENCE DATA

SREF = 1.0000 SQ.FT.  
LREF = 1.0000 IN.  
BREF = 1.0000 IN.  
SCALE = .0400

XMRP = 1.0000 IN. X0  
YMRP = 1.0000 IN. Y0  
ZMRP = 1.0000 IN. Z0

RUN NO. 166/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.260	.11500	2.25000	250.00000	166.00000	2277.00000
20.000	.290	.16300	2.25000	250.00000	166.00000	2265.00000
20.000	GRADIENT	1.53559	.00000	.00000	.00000	-400.01583

RUN NO. 167/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.215	.19000	2.25000	300.00000	167.00000	2298.00000
30.000	.225	.24300	2.25000	300.00000	167.00000	2291.00000
30.000	.470	.25600	2.25000	300.00000	167.00000	2290.00000
30.000	GRADIENT	.16416	-.00000	-.00005	.00000	-18.81775

DATE 22 APR 77

TABULATED DATA - OH548

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AEDC V41B-82A, OH548, -12MODEL, TRIP AFT

(RVM050) : 05 MAR 77 )

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =

1.0000 SQ.FT. XMRP = 1.0000 IN. XO  
1.0000 IN. YMRP = 1.0000 IN. YO  
1.0000 IN. ZMRP = 1.0000 IN. ZO  
.0400

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.500

RUN NO.	163/ 0	RN/L = 2.50	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	TPC
20.000	.235	.12300	163.00000 2138.00000
20.000	.255	.15900	163.00000 2131.00000
20.000	.280	.17500	163.00000 2129.00000
	GRADIENT	1.13443	.00000 -195.11289
RUN NO.	164/ 0	RN/L = 2.50	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	TPC
30.000	.200	.23100	164.00000 2161.00000
30.000	.205	.26700	164.00000 2156.00000
30.000	.470	.28700	164.00000 2154.00000
	GRADIENT	1.14391	.00000 -17.08004
RUN NO.	165/ 0	RN/L = 2.50	GRADIENT INTERVAL = -5.00/ 5.00
ALPHA	X/L	H/HREF	TPC
40.000	.180	.27300	165.00000 2250.00000
40.000	.185	.31600	165.00000 2244.00000
40.000	.200	.32500	165.00000 2243.00000
40.000	.460	.33500	165.00000 2242.00000
40.000	.490	.34700	165.00000 2241.00000
	GRADIENT	.13237	.00000 -15.21010

DATE 22 APR 77

TABULATED DATA - OH54B

PAGE 31  
(RVM051) ( 05 MAR 77 )

AEDC V41B-82A.OH54B.-12MODEL,TRIP AFT

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 2.750

RUN NO. 162/ 0 RN/L = 2.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.220	.11500	2.75000	250.00000	162.00000	2117.00000
20.000	.230	.13600	2.75000	250.00000	162.00000	2112.00000
20.000	.240	.15500	2.75000	250.00000	162.00000	2109.00000
20.000	.265	.17400	2.75000	250.00000	162.00000	2107.00000
	GRADIENT	1.26480	.00000	.00170	-.00170	-204.47778

AEDC V41B-82A.OH54B.-12MODEL,TRIP AFT

## REFERENCE DATA

SREF =  
LREF =  
BREF =  
SCALE =1.0000 SQ.FT.  
1.0000 IN.  
1.0000 IN.  
.0400XMRP = 1.0000 IN. XO  
YMRP = 1.0000 IN. YO  
ZMRP = 1.0000 IN. ZO

## PARAMETRIC DATA

MACH = 8.000 RN/L = 3.000

RUN NO. 159/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.225	.12700	3.00000	300.00000	159.00000	2054.00000
20.000	.250	.16900	3.00000	300.00000	159.00000	2042.00000
20.000	.480	.18000	3.00000	300.00000	159.00000	2040.00000
	GRADIENT	.14420	.00000	-.00006	.00000	-36.52482

RUN NO. 160/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
30.000	.190	.20900	3.00000	350.00000	160.00000	2376.00000
30.000	.195	.27600	3.00000	350.00000	160.00000	2358.00000
30.000	.400	.28300	3.00000	350.00000	160.00000	2357.00000
30.000	.470	.32600	3.00000	350.00000	160.00000	2365.00000
	GRADIENT	.23013	-.00000	-.00006	.00000	-22.65675

RUN NO. 161/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
40.000	.175	.28700	3.00000	400.00000	161.00000	2396.00000
40.000	.180	.34300	3.00000	400.00000	161.00000	2391.00000
40.000	.270	.35200	3.00000	400.00000	161.00000	2392.00000
40.000	.490	.37600	3.00000	400.00000	161.00000	2389.00000
	GRADIENT	.19335	.00000	-.00005	.00000	-14.29795

DATE 22 APR 77

(RVM053) ( 05 MAR 77 )

AEDC V41B-82A, 04548, -12MODEL, TRIP AFT

PARAMETRIC DATA

MACH = 8.000 RN/L = 3.500

REFERENCE DATA

SREF = 1.0000 SQ.FT. XMRP = 1.0000 IN. X0  
 LREF = 1.0000 IN. YMRP = 1.0000 IN. Y0  
 BREF = 1.0000 IN. ZMRP = 1.0000 IN. Z0  
 SCALE = .0430

RUN NO. 158/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	X/L	H/HREF	RN/L	TPC	GROUP	FRAME
20.000	.200	.13600	3.50000	300.00000	158.00000	2024.00000
20.000	.225	.17600	3.50000	300.00000	158.00000	2016.00000
20.000	.480	.19300	3.50000	300.00000	158.00000	2014.00000
	GRADIENT	.14783	.00000	-.00000	.00000	-24.36561